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<210> 6923
<211> 341
<212> PRT
<213> Enterobacter cloacae
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| Val 1 | Asp | Gly | Leu | Val 5 | Lys | Lys | Ile | Gln | Gln 10 | Arg | Ile | Ser | Pro | Gly 15 | Arg |
| Ser | Met | Val | Tyr 20 | Ile | Ile | Ser | Val | Ser 25 | Ile | His | Ser | Gly 30 | Leu | Asn | Ala |
| Gln | Gly | Lys 35 | Arg | Phe | Cys | Met | Gln 40 | Ile | Ser | Arg | Ala | Asp 45 | Val | Ala | Asp |
| Leu | Ile 50 | Tyr | Phe | Met | Ala | Ile 55 | Ala | Arg | His | Arg | Ser 60 | Phe | Ser | Arg | Ala |
| Ala 65 | Ile | Glu | Leu | Gly 70 | Val | Ser | Ala | Ser | Ala | Leu 75 | Ser | His | Ala | Leu | Lys 80 |
| Gly | Leu | Glu | Thr 85 | Arg | Leu | Gly | Val | Arg | Leu 90 | Leu | Asn | Arg | Thr | Thr 95 | Lys |
| Ser | Val | Thr | Pro 100 | Thr | Ala | Ala | Gly | Glu 105 | Glu | Leu | Val | Gln | Ser | Val | Leu |
| Gln | Pro | Phe 115 | Asp | Thr | Ile | Glu | Gly 120 | Ala | Leu | Glu | Ser | Leu 125 | Asn | Arg | Tyr |
| Arg | Asn 130 | Thr | Pro | Thr | Gly | Arg 135 | Ile | Arg | Ile | Asn | Ala 140 | Ala | Val | Glu | Ala |
| Ala 145 | Asn | Leu | Leu | Leu 150 | Ala | Pro | Val | Met | Pro 155 | Ala | Phe | Met | Asp | Arg | Tyr 160 |
| Pro | Asp | Ile | Glu 165 | Ile | Asp | Ile | Val | Ala | Ser 170 | Asn | Arg | Met | Val | Asp 175 | Val |
| Thr | Asp | Ala | Gly 180 | Phe | Asp | Ala | Gly | Ile 185 | Arg | Tyr | Gly | Gly 190 | Thr | Val | Pro |
| Glu | Asp | Met 195 | Val | Ala | Arg | Arg 200 | Leu | Ser | Ala | Asp | Ile 205 | Arg | Trp | Val | Ile |
| Ala 210 | Ala | Ser | Pro | Asp | Tyr | Leu 215 | Glu | Arg | Tyr | Gly | Thr 220 | Pro | Glu | Tyr | Pro |
| Asp 225 | Asp | Leu | Leu | His 230 | His | Arg | Cys | Ile | Ser | Asn 235 | Arg | Leu | Gly | Asp | Asp 240 |
| Arg | Ile | Tyr | Arg 245 | Trp | Glu | Leu | Glu | Arg | Asp 250 | Gly | Glu | Thr | Tyr | Gln | Ile |
| Thr | Val | Pro | Gly 260 | Ser | Val | Thr | Val | Asn 265 | Gln | Ala | Glu | Thr 270 | Gly | Leu | Val |
| Ala | Val | Leu | Gly | Gly | Ala | Gly | Leu | Met | Tyr | Phe | Pro | Glu | Pro | Leu | Val |


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<210> 6924
<211> 179
<212> PRT
<213> Enterobacter cloacae
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[illegible]

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<210> 6925
<211> 62
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Ser | Met | Ser | Gly | Lys | Gly | Tyr | Pro | Lys | Ala | Phe | Lys | Ile | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Val | Lys | Gln | Val | Val | Glu | Arg | Gly | Tyr | Ser | Val | Ser | Ser | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Leu | Leu | Asp | Ile | Thr | Thr | His | Gly | Leu | Tyr | Ala | Arg | Ile | Lys | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Ala | Val | Gly | Phe | His | Cys | Pro | Gln | Cys | Ile | Arg | Gln | | | |
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<210> 6926
<211> 176
<212> PRT
<213> Enterobacter cloacae
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<400> 6926

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 Gly Lys Gly His Arg Asn Ile Ala Leu Val Ile Asp Asn Glu Thr Asp
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 Asp Ala Ser Lys Arg Met Val Glu Gly Tyr Arg Asn Val Leu Gln Asn
 35 40 45
 Tyr Ser Phe Pro Phe Asn Arg Gln Leu Val Leu Thr Ala Asn Glu Asn
 50 55 60
 Val Glu Arg Ala Leu Leu Thr Leu Ile Asn Ser Leu Ser Lys Phe Ser
 65 70 75 80
 Ser Ile Val Val Lys Arg Asp Ala Tyr Ala Ala Glu Ala Met Arg Leu
 85 90 95
 Phe Arg Glu Phe Asn Ile Ala Val Pro Gln Glu Val Ser Leu Leu Ser
 100 105 110
 Leu Glu Asp Ser Pro Leu Ala Thr Gln Leu Tyr Pro Gln Leu Thr Cys
 115 120 125
 Ile Ser Trp Pro Met Glu Ser Leu Leu His Gln Cys Val Gln Arg Ile
 130 135 140
 Lys Ser Ile Val Glu Gly Arg Pro Leu Arg Glu Thr Glu Leu Pro Pro
 145 150 155 160
 Ile Ile Gly Lys Leu Thr Pro Arg Gln Ser Val Leu Glu Met Ser
 165 170 175

<210> 6927

<211> 356

<212> PRT

<213> Enterobacter cloacae

<400> 6927

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 Leu Gly Arg Thr Gly Leu Lys Val Ser Arg Leu Cys Leu Gly Thr Met
 35 40 45
 Asn Phe Gly Asp Val Thr Asp Glu Lys Thr Ser Ala Arg Ile Leu Asp
 50 55 60
 Glu Ala Leu Glu Ala Gly Ile Asn Phe Ile Asp Thr Ala Asp Val Tyr
 65 70 75 80
 Gly Thr Glu Gln Ser Pro Asp Ile Gln Gln Gly Ser Gly Leu Ser Glu
 85 90 95
 Glu Ile Ile Gly Arg Trp Ile Gln Gln Gly Gly Arg Arg Asp Arg Ile
 100 105 110
 Val Leu Ala Thr Lys Val Tyr Gln Pro Met Gly Pro Gly Pro Asn Asp
 115 120 125
 Arg Arg Leu Ser Ala Tyr His Ile Arg Lys Ala Cys Glu Asp Ser Leu
 130 135 140
 Arg Arg Leu Lys Thr Asp His Ile Asp Val Tyr Gln Met His His Ile
 145 150 155 160
 Asp Arg Tyr Thr Pro Trp Glu Glu Ile Trp Gln Ala Met Glu Leu Leu
 165 170 175
 Val Gln Gln Gly Lys Val Leu Tyr Ile Gly Ser Ser Asn Phe Ala Gly
 180 185 190
 Trp Asp Ile Ala Thr Ala Gln Ser Val Ala Thr Ala Arg His Ser Leu
 195 200 205
 Gly Leu Val Ala Glu Gln Ser Leu Tyr Asn Leu Thr Ala Arg Thr Val
 210 215 220
 Glu Leu Glu Val Ile Pro Ala Cys Arg His Phe Gly Leu Gly Leu Ile
 225 230 235 240
 Pro Trp Ser Pro Leu Ala Gly Gly Leu Leu Gly Gly Val Leu Lys Lys


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<211> 151
<212> PRT
<213> Enterobacter cloacae
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<210> 6929
<211> 303
<212> PRT
<213> Enterobacter cloacae
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| <400> 6929 | | | | | | | | | | | | | | | | |
| Glu | His | Ile | Met | Asn | Asn | Ala | Leu | Tyr | Asn | Gln | Ile | Arg | Ile | Phe | Gln | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ser | Ile | Ala | Arg | Glu | Gly | Asn | Ile | Ser | Ala | Ala | Ala | Arg | Lys | Leu | Glu | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ile | Thr | Pro | Pro | Ser | Val | Ser | Asn | Ala | Leu | Lys | Leu | Leu | Glu | Asp | His | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Ile | Gly | His | Pro | Leu | Phe | Val | Arg | Thr | Thr | Arg | Arg | Ile | Glu | Leu | Thr | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Glu | Thr | Gly | Gln | Leu | Leu | Leu | Glu | Gln | Thr | Ala | Ala | Ala | Val | Glu | Ser | |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | | |
| Leu | Glu | His | Ser | Leu | Glu | Ser | Ile | Arg | Asp | Gln | Asn | Gln | Glu | Pro | Ser | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Val | Arg | Ile | Thr | Leu | Ser | Arg | Phe | Ala | Tyr | Leu | Leu | Ile | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Pro | Ala | Met | Ala | Lys | Phe | Cys | Gln | Gln | Tyr | Pro | Gly | Ile | Gln | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Ile | Ser | Val | Tyr | Asp | Gly | Thr | Val | Asn | Val | Ile | Glu | Glu | Arg | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Leu | Gly | Ile | Arg | Phe | Gly | Asp | Ile | Leu | Glu | Gly | Gly | Val | Val | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Pro | Leu | Met | Lys | Pro | Phe | Arg | Glu | Gly | Leu | Tyr | Ala | Ser | Ser | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Tyr | Ile | Ser | Glu | His | Gly | Met | Pro | Glu | Val | Pro | Ala | Asp | Leu | Ser | Gln |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| His | Lys | Leu | Ile | Gly | Tyr | Arg | Phe | Ile | Thr | Asn | Asn | Arg | Ile | Leu | Pro |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Ile | Leu | Asn | Asp | Arg | Gly | Glu | Gln | Leu | Thr | Val | Glu | Met | Pro | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Leu | Ile | Ser | Asn | Asp | Ile | Asp | Val | Met | Ala | Asp | Gly | Ile | Arg | Asn |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Leu | Gly | Ile | Gly | Arg | Leu | Phe | Glu | Pro | Ile | Leu | Gln | Leu | Gln | Pro |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Asp | Arg | Glu | Arg | Phe | Ile | Pro | Val | Met | Glu | Ser | Tyr | Trp | Lys | Thr | Tyr |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Pro | Pro | Val | Tyr | Leu | Tyr | Tyr | Pro | Lys | Asn | Ala | Gly | Lys | Thr | Lys | Arg |
| | | 275 | | | | | 280 | | | | 285 | | | | |
| Val | Lys | Ala | Leu | Ile | Asp | Phe | Leu | Ile | Ser | Ala | Thr | Gly | Arg | | |
| | 290 | | | | | 295 | | | | | 300 | | | | |

<210> 6930

<211> 430

<212> PRT

<213> Enterobacter cloacae

<400> 6930

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Ser | Thr | Lys | Ser | Gly | Pro | Asp | Pro | Gly | Glu | Lys | Arg | Pro | Arg |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Leu | Met | Pro | Gly | Asn | Asp | Gln | Ile | Asn | Glu | Ser | Phe | Leu | Arg | Tyr | Arg |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Glu | Phe | Gln | Phe | Met | Ser | Lys | Met | Met | His | Asp | Gln | His | Ser | Ala | Ser |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | Pro | Ala | Ser | Arg | Asp | Arg | Arg | Asn | Phe | Leu | Ile | Ala | Gly | Ala | Gly |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Leu | Ala | Leu | Ala | Ala | Thr | Thr | Leu | Gly | Arg | Ser | Gly | Ala | Val | Met | Ala |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Lys | Pro | Ala | Gly | Gln | Asp | Thr | Ser | Ser | Ala | Pro | Ser | Gly | Ala | Val | Pro |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Gln | Lys | Glu | Thr | Leu | Thr | Thr | Arg | Lys | Leu | Gly | Ser | Leu | Glu | Val |
| | 100 | | | | | | | 105 | | | | | 110 | | |
| Ser | Ser | Met | Gly | Leu | Gly | Cys | Leu | Pro | Met | Val | Gly | Tyr | Tyr | Gly | Gly |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Gly | Pro | Arg | Asp | Arg | Lys | Ala | Met | Val | Ser | Leu | Ile | Arg | Ala | Ala | Phe |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Glu | Gln | Gly | Ile | Thr | Phe | Phe | Asp | Thr | Ala | Glu | Val | Tyr | Gly | Pro | His |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Leu | Ser | Glu | Glu | Phe | Val | Gly | Glu | Ala | Leu | Ala | Pro | Val | Arg | Asp | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Val | Val | Ile | Ala | Thr | Lys | Phe | Gly | Phe | Gly | Val | Glu | Glu | Gly | Lys | Pro |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Thr | Ser | Leu | Asn | Ser | His | Pro | Asp | His | Ile | Arg | Arg | Ala | Val | Glu | Gly |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Ser | Leu | Lys | Arg | Leu | Lys | Thr | Asp | His | Ile | Asp | Leu | Leu | Tyr | Gln | His |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | Asp | Pro | Asn | Val | Pro | Ile | Glu | Asp | Val | Ala | Glu | Thr | Val | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Leu | Ile | Arg | Glu | Gly | Lys | Val | Lys | His | Trp | Gly | Leu | Ser | Glu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Ala | Gly | Thr | Ile | Arg | Arg | Ala | His | Ala | Val | Leu | Pro | Val | Thr | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Gln | Ser | Glu | Tyr | Ala | Met | Trp | Trp | Arg | Glu | Pro | Glu | Thr | Arg | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Pro | Thr | Leu | Glu | Glu | Leu | Gly | Ile | Gly | Phe | Val | Pro | Tyr | Cys | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Ala | Arg | Ser | Phe | Leu | Ala | Gly | Ala | Val | Asn | Pro | Ser | Gln | Arg | Phe |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Ser | Thr | Asp | Arg | Arg | His | Asn | Leu | Pro | Arg | Phe | Gln | Pro | Asp | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Ala | Lys | Asn | Met | Val | Leu | Leu | Glu | Phe | Ala | Gln | Ser | Trp | Ala | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Arg | Lys | Asn | Thr | Thr | Pro | Val | Gln | Phe | Ala | Leu | Ala | Trp | Val | Met | Ala |
| | | | 355 | | | | 360 | | | | | | 365 | | |
| Gln | Arg | Pro | Trp | Ile | Val | Pro | Ile | Pro | Gly | Thr | Thr | Gln | Tyr | Pro | His |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Ile | Glu | Asn | Ser | Gly | Ala | Pro | Gln | Val | Arg | Leu | Thr | Asp | Ser | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Arg | Glu | Ile | Asp | Ala | Ala | Leu | Ala | Arg | Ile | Pro | Leu | Gln | Gly | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Arg | Ala | Asp | Pro | Phe | Thr | Glu | Ser | Gln | Phe | Asp | Lys | Ser | | | |
| | | | 420 | | | | | 425 | | | | | 430 | | |

<210> 6931

<211> 325

<212> PRT

<213> Enterobacter cloacae

<400> 6931

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| Val | Lys | Ser | Pro | Ser | Val | Phe | Leu | Pro | Gly | Ile | Asn | His | Met | Asn | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Asn | His | Asn | Ala | Leu | Thr | Arg | Ser | Ala | Val | Pro | Ile | Pro | Pro | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Arg | Ser | Leu | Gln | Thr | Val | Glu | Ala | Gln | Pro | Tyr | Phe | Ser | Val | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Glu | Ala | Ser | Leu | Val | Leu | Glu | Gly | Ala | Val | Phe | Asp | Arg | Asn | Asn | Asn |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Leu | Phe | Val | Asp | Ala | Ala | Thr | Gly | Arg | Val | Phe | Lys | Leu | Thr | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Arg | Gln | Leu | Ser | Ile | Val | Leu | Lys | Glu | Asn | Thr | Phe | Gly | Ala | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Leu | Ala | Val | His | Lys | Asp | Gly | Arg | Ile | Phe | Ile | Ala | Ser | Val | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Met | Gln | Arg | Gly | Ser | Val | Arg | Ala | Ile | Glu | Pro | Asp | Gly | Thr | Arg |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Glu | Gln | Met | Ile | Val | Asp | Pro | Glu | Gly | Gly | Phe | Leu | Ala | Asn | Asp | Leu |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Val | Phe | Asp | Asn | Gln | Gly | Gly | Phe | Tyr | Phe | Thr | Asp | Ser | Arg | Gly | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Ala | Asp | Pro | Gln | Gly | Gly | Val | Phe | Tyr | Val | Ser | Pro | Asn | Val | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Ile | His | Ala | Ile | Leu | Pro | Gly | Leu | Ala | Val | Gly | Asn | Gly | Leu | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Asp | Pro | Asp | Gly | Thr | Leu | Ile | Trp | Ala | Thr | Glu | His | Ala | Lys | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Leu | His | Arg | Val | Arg | Leu | Ser | Asp | Ala | Thr | Thr | Ile | Ala | Pro | Phe |
| | 210 | | | | | 215 | | | | | | 220 | | | |

Gly Ser Val Val Thr Tyr Gln Phe Thr Gly Pro Ala Pro Asp Gly Ala
 225 230 235 240
 Arg Val Asp Ser Glu Gly Asn Val Tyr Val Ala Ile Ser Gly Gln Gly
 245 250 255
 Arg Ile Met Val Phe Asn Arg Asn Gly Leu Pro Ile Gly Gln Ile Val
 260 265 270
 Leu Pro Asp Arg Asp Lys Gly Arg Asn Leu Lys Ser Thr Ser Leu Ala
 275 280 285
 Ile Arg Pro Gly His His Glu Leu Phe Ile Val Thr Asn Ser Gly Thr
 290 295 300
 Glu Pro Gly Gly Ala Met Ile Phe Arg Ser Gly Ala Phe Ala Pro Ala
 305 310 315 320
 Pro Leu Pro Phe
 325

<210> 6932

<211> 187

<212> PRT

<213> Enterobacter cloacae

<400> 6932

Arg Leu Ser Gly Lys Pro Ala Trp Cys Lys Ala Thr Cys Pro Arg Glu
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 20 25 30
 Leu Phe Gly Arg Val Lys Phe Pro Met Lys Asn Ile Pro Phe Trp Gln
 35 40 45
 Ser Lys Thr Phe Asp Asp Met Thr Asp Ala Glu Trp Glu Ser Leu Cys
 50 55 60
 Asp Gly Cys Gly Gln Cys Cys Leu His Lys Leu Met Asp Glu Asp Ser
 65 70 75 80
 Asp Glu Ile Tyr Phe Thr Asn Val Ala Cys Lys Gln Leu Asn Ile Lys
 85 90 95
 Thr Cys Gln Cys Arg Asn Tyr Glu Arg Arg Phe Glu Tyr Glu Pro Asp
 100 105 110
 Cys Ile Lys Leu Thr Arg Glu Asn Leu Pro Thr Phe Glu Trp Leu Pro
 115 120 125
 His Thr Cys Ala Tyr Arg Leu Leu Ala Glu Gly Lys Asp Leu Pro Thr
 130 135 140
 Trp His Pro Leu Leu Thr Gly Ser Lys Ala Ala Met His Gly Glu Arg
 145 150 155 160
 Ile Ser Val Arg His Ile Ala Val Lys Glu Ser Glu Val Arg Asp Trp
 165 170 175
 Glu Asp His Ile Met Asn His Pro Asn Arg
 180 185

<210> 6933

<211> 298

<212> PRT

<213> Enterobacter cloacae

<400> 6933

Asp Lys Thr Ser Val Tyr Ala Lys Met Ala Ala Glu Arg Gly Ile Lys
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 20 25 30
 Ser Ala Ala Leu Ser Ala Ser Ala Arg Leu Trp Tyr Asp Glu Cys Asn
 35 40 45
 Leu Leu Lys Leu Cys Asn Gly Asn Leu Thr Met Val Ile Lys Ala Gln
 50 55 60
 Ser Pro Ala Gly Phe Ala Glu Glu Tyr Ile Ile Glu Ser Ile Trp Asn

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Asn | Arg | Phe | Pro | Ala | Gly | Ser | Ile | Leu | Pro | Ala | Glu | Arg | Glu | Leu |
| | | | | 85 | | | | | 90 | | | | 95 | |
| Glu | Leu | Ile | Gly | Val | Thr | Arg | Thr | Thr | Leu | Arg | Glu | Val | Leu | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Leu | Ala | Arg | Asp | Gly | Trp | Leu | Thr | Ile | Gln | His | Gly | Lys | Pro | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | |
| Val | Asn | Asn | Phe | Trp | Glu | Thr | Ser | Gly | Leu | Asn | Ile | Leu | Glu | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | |
| Ala | Arg | Leu | Asp | His | Glu | Ser | Val | Pro | Gln | Leu | Ile | Asp | Asn | Leu |
| 145 | | | | | 150 | | | | 155 | | | | | 160 |
| Ser | Val | Arg | Thr | Asn | Ile | Ala | Thr | Ile | Phe | Ile | Arg | Thr | Ala | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Gln | His | Pro | Glu | Asp | Ala | Leu | Lys | Val | Leu | Ala | Thr | Ala | Asn | Glu |
| | | 180 | | | | | | 185 | | | | | 190 | |
| Glu | Asp | His | Ala | Asp | Ala | Phe | Ala | Thr | Leu | Asp | Tyr | Asn | Val | Phe |
| | 195 | | | | | | 200 | | | | | 205 | | |
| Gly | Leu | Ala | Phe | Ala | Ser | Gly | Asn | Pro | Val | Tyr | Gly | Leu | Ile | Leu |
| | 210 | | | | 215 | | | | | 220 | | | | |
| Gly | Met | Lys | Gly | Leu | Tyr | Thr | Arg | Ile | Gly | Arg | His | Tyr | Phe | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Pro | Glu | Ala | Arg | Ser | Leu | Ala | Leu | Gly | Phe | Tyr | His | Lys | Leu | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Leu | Cys | Thr | Glu | Gly | Leu | His | Asp | Gln | Val | Tyr | Glu | Thr | Val | Arg |
| | | 260 | | | | | | 265 | | | | | 270 | |
| Tyr | Gly | His | Asp | Ser | Gly | Glu | Ile | Trp | His | Arg | Met | Gln | Lys | Thr |
| | 275 | | | | | 280 | | | | | | 285 | | |
| Pro | Gly | Asp | Leu | Ala | Ile | Gln | Gly | Arg | | | | | | |
| | 290 | | | | | 295 | | | | | | | | |

<210> 6934

<211> 445

<212> PRT

<213> Enterobacter cloacae

<400> 6934

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| Leu | Asp | Asp | Cys | Ser | Phe | Ala | His | Asn | Gly | Val | Ala | Met | Arg | Val |
| 1 | | | 5 | | | | | | 10 | | | | | 15 |
| Ile | Leu | Gly | Ser | Gly | Val | Val | Gly | Val | Thr | Ser | Ala | Trp | Tyr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | |
| Gln | Ala | Gly | His | Glu | Val | Thr | Val | Ile | Asp | Arg | Glu | Ser | Gly | Pro |
| | 35 | | | | | | 40 | | | | | 45 | | |
| Leu | Glu | Thr | Ser | Ala | Ala | Asn | Ala | Gly | Gln | Ile | Ser | Pro | Gly | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | |
| Ala | Pro | Trp | Ala | Ala | Pro | Gly | Val | Pro | Leu | Lys | Ala | Ile | Lys | Trp |
| 65 | | | | | 70 | | | | 75 | | | | | 80 |
| Phe | Gln | Arg | His | Ala | Pro | Leu | Ala | Ile | Ser | Leu | Asp | Gly | Thr | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 |
| Gln | Leu | Lys | Trp | Met | Trp | Gln | Met | Leu | Arg | Asn | Cys | Asp | Thr | Arg |
| | | 100 | | | | | | 105 | | | | | 110 | |
| Tyr | Met | Glu | Asn | Lys | Gly | Arg | Met | Val | Arg | Leu | Ala | Glu | Tyr | Ser |
| | 115 | | | | | | 120 | | | | | 125 | | |
| Asp | Cys | Leu | Lys | Ala | Leu | Arg | Ala | Ser | Thr | Gly | Ile | Glu | Tyr | Glu |
| | 130 | | | | | 135 | | | | 140 | | | | |
| Arg | Gln | Gly | Gly | Thr | Leu | Gln | Leu | Phe | Arg | Thr | Ala | Gln | Gln | Tyr |
| 145 | | | | | 150 | | | | 155 | | | | | 160 |
| Asn | Ala | Thr | Arg | Asp | Ile | Ala | Val | Leu | Glu | Asp | Ala | Gly | Val | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Gln | Leu | Leu | Glu | Ala | Ser | Gln | Leu | Ala | Gln | Val | Glu | Pro | Ala | Leu |
| | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Val | Ala | His | Lys | Leu | Thr | Gly | Gly | Leu | Arg | Leu | Pro | Asn | Asp |


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<210> 6935
<211> 360
<212> PRT
<213> Enterobacter cloacae
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| <400> 6935 | | | | | | | | | | | | | | | | |
| Gly 1 | Val | Ala | Met | Ser 5 | Arg | Pro | Ile | Leu | Ala 10 | Gln | Leu | Asp | Leu | Gln | Ala | |
| Leu | Lys | Asp | Asn 20 | Leu | Gln | Ile | Val | Arg 25 | Arg | Ala | Ala | Pro | Gly 30 | Ser | Arg | |
| Val | Trp | Ser 35 | Val | Val | Lys | Ala | Asn 40 | Ala | Tyr | Gly | His | Gly 45 | Ile | Asp | Arg | |
| Ile | Trp 50 | Ser | Ala | Leu | Gly | Ala 55 | Thr | Asp | Gly | Phe | Ala 60 | Leu | Leu | Asn | Leu | |
| Glu 65 | Glu | Ala | Ile | Leu | Leu 70 | Arg | Glu | Arg | Gly | Trp 75 | Lys | Gly | Pro | Ile | Leu | |
| Leu | Leu | Glu | Gly | Phe 85 | Phe | His | Ala | Gln | Asp 90 | Leu | Pro | Leu | Leu | Asp 95 | Lys | |
| Tyr | Arg | Leu | Thr 100 | Thr | Ser | Val | His | Ser | Asn 105 | Trp | Gln | Ile | Lys 110 | Ala | Ile | |
| Gln | Asp | Ala 115 | Lys | Leu | His | Ala | Pro 120 | Leu | Asp | Ile | Tyr | Leu 125 | Lys | Val | Asn | |
| Ser | Gly 130 | Met | Asn | Arg | Leu | Gly 135 | Phe | Gln | Pro | Glu | Arg | Val 140 | His | Thr | Val | |
| Trp 145 | Gln | Gln | Leu | Arg | Ala 150 | Leu | Lys | Asn | Val | Gly 155 | Glu | Met | Thr | Leu | Met | |
| Ala | His | Phe | Ala | Asp 165 | Ala | Glu | Lys | Pro | Asp 170 | Gly | Ile | Ala | Asp | Ala 175 | Met | |
| Val | Arg | Ile | Glu | Gln | Ala | Ala | Glu | Gly | Leu | Asp | Cys | Pro | Arg | Ser | Leu | |


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<210> 6936
<211> 211
<212> PRT
<213> Enterobacter cloacae
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<210> 6937
<211> 257

<212> PRT

<213> Enterobacter cloacae

<400> 6937

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Pro Arg Asp Ser Leu Ser Ser Ile Glu Glu Pro Ser Gly Val Ser Ser
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Tyr Ser Glu Gln Phe Leu Lys Gln Asn Pro Leu Ala Val Leu Gly Val
20      25      30
Leu Arg Asp Leu Lys Lys Gly Glu Val Pro Leu Arg Ile Asn Trp Ser
35      40      45
Thr Ser Gln Phe Ile Ser Lys Ile Leu Asp Val Thr Ala Glu His Leu
50      55      60
Ile Val Asp Leu Gly Ser Gln Ser Asp Glu Asn Arg Ala Ala Leu Gln
65      70      75      80
Ala Glu Asn Leu Ser Val Met Ala Glu Thr Gln Gly Ala Lys Val Glu
85      90      95
Phe Val Leu Pro Arg Leu Thr Ala Ile Ala Tyr Gln Asp Leu Pro Ala
100     105     110
Phe Ile Ala Pro Leu Pro Ala Asn Leu Trp Phe Val Gln Arg Arg Glu
115     120     125
Phe Phe Arg Ile Ser Ala Pro Leu His Pro Ala Tyr Phe Cys Lys Ala
130     135     140
Lys Met Pro Asp Lys Lys Glu Ile Arg Phe Arg Leu Phe Asp Leu Ser
145     150     155     160
Leu Gly Gly Met Gly Ala Leu Met Asp Thr Pro Lys Pro Glu Gly Leu
165     170     175
Val Glu Gly Met Arg Phe Ser Gln Ile Glu Leu Asp Met Gly Gly Trp
180     185     190
Gly Arg Phe Trp Phe Asp Ala Gln Leu Ile Ala Ile Ser Glu Arg Lys
195     200     205
Val Val Asp Ser Lys Asn Glu Thr Ile Thr Thr Pro Arg Leu Ser Phe
210     215     220
Arg Phe Leu Asn Val Gly Pro Gly Ala Glu Arg Glu Leu Gln Arg Ile
225     230     235     240
Ile Phe Ser Leu Glu Arg Glu Ala Arg Glu Arg Ala Asn Lys Val Arg
245     250     255

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<210> 6938

<211> 313

<212> PRT

<213> Enterobacter cloacae

<400> 6938

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Pro Ser Gly Tyr Cys Ile Asn Gln Glu Ala Ala Gln Arg Gly Val Gln
20      25      30
Arg Leu Leu Glu Met Gly His Gln Val Glu Asn Gln Thr Ile Ile Pro
35      40      45
Arg Arg Met Gln Arg Phe Ala Gly Thr Glu Ala Gln Arg Leu Ser Asp
50      55      60
Ile Asn Ser Leu Ala Thr Leu Glu Gly Glu Asn Thr Ile Val Leu Ala
65      70      75      80
Val Arg Gly Gly Tyr Gly Ala Ser Arg Leu Glu Ser Ile Asp Trp
85      90      95
Ala Gly Leu Ala Ala Arg Gln Gln Gln Asp Pro Leu Leu Ile Cys Gly
100     105     110
His Ser Asp Phe Thr Ala Ile Gln Leu Gly Leu Leu Ala Leu His Asn
115     120     125

```


Val Ile Thr Phe Ser Gly Pro Met Leu Ala Gly Asn Phe Gly Ala Pro
 130 135 140
 Glu Leu Asp Ala Phe Thr Gln Asp His Phe Trp Arg Ala Leu Gln Asn
 145 150 155 160
 Pro Thr Phe Thr Ile Glu Trp Gln Gly Asn Gly Pro His Trp Glu Cys
 165 170 175
 Glu Gly Gln Leu Trp Gly Gly Asn Leu Ala Met Leu Val Ser Leu Ile
 180 185 190
 Gly Thr Pro Trp Leu Pro Gln Ile Thr Asp Gly Ile Leu Val Leu Glu
 195 200 205
 Asp Ile Asn Glu His Pro Phe Arg Val Glu Arg Met Leu Leu Gln Leu
 210 215 220
 Ser His Ala Gly Ile Leu Asp Arg Gln Ser Ala Ile Val Leu Gly Ser
 225 230 235 240
 Phe Ser Gly Ser Ala Pro Asn Asp Tyr Asp Ala Gly Tyr Ser Leu Glu
 245 250 255
 Thr Met Ile Asp Phe Ile Arg Ser Arg Leu Asp Ile Pro Val Ile Ala
 260 265 270
 Gly Leu Asp Phe Gly His Glu Gln Gln Thr Val Thr Leu Pro Leu Gly
 275 280 285
 Ala Arg Ala His Leu Val His Asp Asn Ser Gly Ser Arg Leu Thr Ile
 290 295 300
 Ser Gly His Pro Val Leu Lys Ala
 305 310

<210> 6939

<211> 184

<212> PRT

<213> Enterobacter cloacae

<400> 6939

Ala Cys Ser Arg Glu Met Ile Met Leu Arg Phe Leu Asn Gln Cys Ser
 1 5 10 15
 Arg Gly Arg Gly Ala Trp Leu Leu Met Ala Leu Thr Ala Phe Ala Leu
 20 25 30
 Glu Met Val Ala Leu Trp Phe Gln His Val Met Gly Leu Lys Pro Cys
 35 40 45
 Val Leu Cys Ile Tyr Glu Arg Cys Ala Leu Phe Gly Ile Met Gly Ala
 50 55 60
 Gly Leu Val Gly Ala Ile Ala Pro Lys Ser Pro Leu Arg Tyr Ala Ala
 65 70 75 80
 Ile Ala Ile Trp Leu Tyr Ser Ala Gly Lys Gly Ile Ala Leu Ala Trp
 85 90 95
 Glu His Thr Gln Met Gln Leu His Pro Ser Pro Phe Met Thr Cys Asp
 100 105 110
 Phe Ala Ala Arg Phe Pro Ser Trp Leu Pro Leu Asp Lys Trp Leu Pro
 115 120 125
 Gln Val Phe Val Ala Ser Gly Asp Cys Ser Val Arg Gln Trp Glu Phe
 130 135 140
 Leu Thr Leu Glu Met Pro Gln Trp Leu Val Gly Ile Phe Val Ala Tyr
 145 150 155 160
 Phe Val Val Ala Leu Leu Val Leu Ile Ala Gln Pro Phe Lys Pro Lys
 165 170 175
 Lys Arg Asp Leu Phe Gly Arg
 180

<210> 6940

<211> 584

<212> PRT

<213> Enterobacter cloacae

<400> 6940

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ser | Lys | Thr | Thr | Leu | Gly | Ala | Thr | Ala | Ile | Ile | Ser | Leu | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Leu | Gly | Ser | Ile | Leu | Val | Thr | Phe | Ser | Ile | Leu | Leu | Ser | Ser | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ser | Arg | Leu | Gly | Ile | Pro | Ile | Leu | Val | Ile | Phe | Leu | Ala | Ile | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Leu | Ala | Gly | Ile | Asp | Gly | Ile | Gly | Gly | Ile | Pro | Phe | Asp | Asn | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Phe | Ala | Tyr | Met | Val | Ser | Asn | Leu | Ala | Leu | Ala | Val | Ile | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Gly | Gly | Met | Arg | Thr | Gln | Ala | Ser | Ser | Phe | Arg | Val | Ala | Leu | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Ala | Leu | Ser | Leu | Ala | Thr | Val | Gly | Val | Leu | Ile | Thr | Ser | Gly | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Gly | Met | Met | Ala | Ala | Trp | Leu | Phe | Asn | Leu | Asp | Ile | Met | Glu | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Leu | Leu | Ile | Gly | Ala | Ile | Val | Gly | Ser | Thr | Asp | Ala | Ala | Ala | Val | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Leu | Leu | Gly | Gly | Lys | Gly | Leu | Asn | Glu | Arg | Val | Gly | Ser | Thr | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Ile | Glu | Ser | Gly | Ser | Asn | Asp | Pro | Met | Ala | Val | Phe | Leu | Thr | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Leu | Ile | Glu | Met | Ile | Gln | Gln | His | Glu | Thr | Gly | Leu | Ser | Trp | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Ala | Trp | His | Ile | Leu | Gln | Gln | Phe | Gly | Leu | Gly | Ile | Ile | Ile | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Gly | Gly | Gly | Tyr | Leu | Leu | Gln | Gln | Thr | Ile | Asn | Arg | Ile | Thr | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Ser | Gly | Leu | Tyr | Pro | Leu | Leu | Ala | Leu | Ser | Gly | Gly | Ile | Leu | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Ala | Val | Thr | Thr | Ala | Leu | Asp | Gly | Ser | Gly | Ile | Leu | Ala | Val | Tyr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Cys | Gly | Phe | Leu | Leu | Gly | Asn | Arg | Pro | Ile | Arg | Asn | Arg | His | Ala |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Ile | Leu | Gln | Asn | Phe | Asp | Gly | Leu | Ala | Trp | Leu | Ala | Gln | Ile | Ala | Met |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Leu | Val | Leu | Gly | Leu | Leu | Val | Thr | Pro | Ser | Asp | Leu | Leu | Pro | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Val | Pro | Ala | Leu | Leu | Leu | Ser | Ala | Trp | Met | Ile | Phe | Phe | Ala | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Pro | Leu | Ser | Val | Phe | Ala | Gly | Leu | Leu | Pro | Phe | Arg | Gly | Phe | Asn | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Glu | Arg | Ile | Phe | Ile | Ser | Trp | Val | Gly | Leu | Arg | Gly | Ala | Val | Pro |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Ile | Leu | Ala | Val | Phe | Pro | Met | Met | Ala | Gly | Leu | Asp | Asn | Ala | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Phe | Phe | Asn | Val | Ala | Phe | Phe | Val | Val | Leu | Val | Ser | Leu | Leu | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gln | Gly | Thr | Ser | Leu | Gly | Trp | Ala | Ala | Lys | Lys | Ala | Lys | Val | Val | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | Pro | Ile | Gly | Trp | Pro | Val | Ser | Arg | Val | Gly | Leu | Asp | Ile | His | Pro |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Glu | Asn | Pro | Trp | Glu | Gln | Phe | Val | Tyr | Gln | Leu | Ser | Ala | Asp | Lys | Trp |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Cys | Val | Gly | Ala | Ser | Leu | Arg | Asp | Leu | His | Met | Pro | Ala | Glu | Thr | Arg |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ile | Ala | Ala | Leu | Phe | Arg | Asp | Asn | Ala | Leu | Leu | His | Pro | Thr | Gly | Ser |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Thr | Arg | Leu | Arg | Glu | Asn | Asp | Ile | Leu | Cys | Val | Ile | Gly | Arg | Glu | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |


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<210> 6941
<211> 527
<212> PRT
<213> Enterobacter cloacae
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|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----------|-----|
| Lys 1 | Glu | Ala | Leu | Gln 5 | Ser | Glu | Arg | Ala | Thr 10 | Asn | Asn | Glu | Gly | Ala 15 | Leu |
| Met | Ala | Thr | Leu | Asp | Ser | Met | Ser | Arg | Asp | Ser | Thr | Arg | Leu | Ser | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Pro | Asp | Trp | Thr | Phe | Glu | Leu | Leu | Asp | Val | Tyr | Leu | Ala | Glu | Ile |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Asp | Arg | Val | Ala | Lys | Leu | Tyr | Arg | Leu | Asp | Thr | Tyr | Pro | His | Gln | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Val | Ile | Thr | Ser | Glu | Gln | Met | Met | Asp | Ala | Tyr | Ser | Ser | Val | Gly |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Met | Pro | Ile | Asn | Tyr | Pro | His | Trp | Ser | Phe | Gly | Lys | Lys | Phe | Ile | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Thr | Glu | Arg | Leu | Tyr | Lys | His | Gly | Gln | Gln | Gly | Leu | Ala | Tyr | Glu | Ile |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Val | Ile | Asn | Ser | Asn | Pro | Cys | Ile | Ala | Tyr | Leu | Met | Glu | Glu | Asn | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Thr | Met | Gln | Ala | Leu | Val | Met | Ala | His | Ala | Cys | Tyr | Gly | His | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Phe | Phe | Lys | Asn | Asn | Tyr | Leu | Phe | Arg | Ser | Trp | Thr | Asp | Ala | Ser |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Ser | Ile | Val | Asp | Tyr | Leu | Ile | Phe | Ala | Arg | Asn | Tyr | Ile | Thr | Asp | Cys |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Glu | Glu | Arg | Tyr | Gly | Val | Asp | Glu | Val | Glu | Lys | Leu | Leu | Asp | Ser | Cys |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| His | Ala | Leu | Met | Asn | Tyr | Gly | Val | Asp | Arg | Tyr | Lys | Arg | Pro | Gln | Lys |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ile | Ser | Leu | Gln | Glu | Glu | Lys | Ala | Arg | Gln | Lys | Ser | Arg | Glu | Glu | Tyr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gln | Ser | Gln | Val | Asn | Met | Leu | Trp | Arg | Thr | Leu | Pro | Lys | Arg | Glu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Glu | Glu | Lys | Thr | Val | Ala | Glu | Ala | Arg | Arg | Tyr | Pro | Ser | Glu | Pro | Gln |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Glu | Asn | Leu | Leu | Tyr | Phe | Met | Glu | Lys | Asn | Ala | Pro | Leu | Leu | Glu | Pro |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Trp | Gln | Arg | Glu | Ile | Leu | Arg | Ile | Val | Arg | Lys | Val | Ser | Gln | Tyr | Phe |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Tyr | Pro | Gln | Lys | Gln | Thr | Gln | Val | Met | Asn | Glu | Gly | Trp | Ala | Thr | Phe |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Trp | His | Tyr | Thr | Ile | Leu | Asn | His | Leu | Tyr | Asp | Glu | Gly | Lys | Val | Ser |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Phe | Met | Met | Glu | Phe | Leu | His | Ser | His | Thr | Asn | Val | Val | Phe |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gln | Pro | Ala | Tyr | Asn | Ser | Pro | Trp | Tyr | Ser | Gly | Ile | Asn | Pro | Tyr | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Gly | Phe | Ala | Met | Phe | Gln | Asp | Ile | Lys | Arg | Ile | Cys | Gln | Ser | Pro |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Glu | Glu | Asp | Lys | Tyr | Trp | Phe | Pro | Asp | Ile | Ala | Gly | Ser | Asp | Trp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Glu | Thr | Leu | His | Phe | Ala | Met | Arg | Asp | Phe | Lys | Asp | Glu | Ser | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ile | Ser | Gln | Phe | Met | Ser | Pro | Lys | Ile | Met | Arg | Asp | Phe | Arg | Phe | Phe |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Thr | Val | Leu | Asp | Asp | Arg | Asn | Asn | Phe | Leu | Glu | Ile | Ser | Ala | Ile | |
| | | | 420 | | | | 425 | | | | | | 430 | | |
| His | Asn | Glu | Glu | Gly | Tyr | Arg | Glu | Ile | Arg | Ser | Arg | Leu | Ser | Ser | Gln |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Tyr | Asn | Leu | Ser | Asn | Leu | Glu | Pro | Asn | Ile | Gln | Val | Trp | Asn | Val | Asp |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Leu | Arg | Gly | Asp | Arg | Ser | Leu | Thr | Leu | Arg | Tyr | Ile | Pro | His | Asn | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Pro | Leu | Asp | Lys | Gly | Arg | Lys | Glu | Val | Leu | Lys | His | Val | His | Arg |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Leu | Trp | Gly | Phe | Asp | Val | Leu | Leu | Glu | Gln | Gln | Asn | Glu | Asp | Gly | Ser |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Val | Glu | Leu | Leu | Glu | Arg | Cys | Pro | Ala | Arg | Leu | Asn | Thr | Leu | | |
| | | 515 | | | | | 520 | | | | | 525 | | | |

<210> 6942

<211> 540

<212> PRT

<213> Enterobacter cloacae

<400> 6942

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Val | Leu | Phe | Asp | Gly | Glu | Arg | Thr | Ser | Val | Val | Glu | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Gly | Arg | Ala | Leu | Trp | Arg | Asn | Phe | Leu | Gly | Gln | Ser | Pro | Asp | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Lys | Leu | Thr | Leu | Leu | Val | Phe | Leu | Val | Val | Asn | Pro | Val | Ile | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Asp | Pro | Phe | Val | Ala | Gly | Trp | Met | Leu | Val | Ala | Glu | Phe | Ile |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Phe | Thr | Leu | Ala | Met | Ala | Leu | Lys | Cys | Tyr | Pro | Leu | Leu | Pro | Gly | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Leu | Ala | Leu | Glu | Ala | Val | Val | Ile | Gly | Met | Thr | Ser | Ala | Glu | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Lys | Asn | Glu | Ile | Ala | Ser | Asn | Leu | Glu | Val | Leu | Leu | Leu | Leu | Ile |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Phe | Met | Val | Ala | Gly | Ile | Tyr | Phe | Met | Lys | Gln | Leu | Leu | Leu | Phe | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Thr | Arg | Leu | Leu | Leu | Ser | Ile | Pro | Ser | Lys | Thr | Leu | Leu | Ser | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Phe | Cys | Leu | Ala | Ala | Ala | Phe | Val | Ser | Ala | Phe | Leu | Asp | Ala | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Val | Val | Ala | Val | Val | Ile | Ser | Val | Ala | Val | Gly | Phe | Tyr | Gly | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Tyr | His | Arg | Val | Ala | Ser | Ser | Arg | Pro | Gly | Asp | Asn | Leu | Gln | Asp | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | His | Val | Glu | Ala | His | Asn | Arg | Asp | Val | Leu | Glu | Gln | Phe | Arg | Ala |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Phe | Leu | Arg | Ser | Leu | Met | Met | His | Ala | Gly | Val | Gly | Thr | Ala | Leu | Gly |
| | 210 | | | | | 215 | | | | | | 220 | | | |

Gly Val Met Thr Met Val Gly Glu Pro Gln Asn Leu Ile Ile Ala Lys
 225 230 235 240
 Ala Ala Glu Trp His Phe Gly Glu Phe Phe Leu Arg Met Ala Pro Val
 245 250 255
 Ser Val Pro Val Leu Val Cys Gly Leu Ala Thr Cys Val Leu Val Glu
 260 265 270
 Lys Phe Asn Leu Phe Gly Tyr Gly Ala Thr Leu Pro Asp Gln Val Arg
 275 280 285
 Gln Glu Leu His Lys Phe Asp Glu Gln Ser Arg Lys Gln Arg Thr Arg
 290 295 300
 Gln Glu Thr Leu Arg Leu Ile Ala Gln Gly Phe Ile Gly Val Trp Leu
 305 310 315 320
 Ile Ala Ala Leu Ala Phe His Leu Ala Glu Val Gly Leu Ile Gly Leu
 325 330 335
 Ser Val Ile Ile Leu Ala Thr Ser Leu Gly Gly Val Thr Asp Glu His
 340 345 350
 Ala Ile Gly Lys Ala Phe Thr Glu Ala Leu Pro Phe Thr Ala Leu Leu
 355 360 365
 Ala Val Phe Phe Ala Val Val Ala Val Ile Ile Asp Gln His Leu Phe
 370 375 380
 Ala Pro Ile Ile Ala Phe Val Leu Gln Ala Thr Pro Asp Ser Gln Leu
 385 390 395 400
 Thr Leu Phe Tyr Leu Phe Asn Gly Leu Leu Ser Ser Ile Ser Asp Asn
 405 410 415
 Val Phe Val Gly Thr Val Tyr Ile Asn Glu Ala Lys Ala Ala Met Glu
 420 425 430
 Gln Gly Ile Val Ser Ser Glu Gln Phe Glu Leu Leu Ala Val Ala Ile
 435 440 445
 Asn Thr Gly Thr Asn Leu Pro Phe Arg Gly Asn Pro Glu Arg Ser Gly
 450 455 460
 Gly Ile Pro Leu Pro Ala Asp Leu Gly Ala Gly Thr Thr His Thr Thr
 465 470 475 480
 Phe Leu Trp Lys Asn Gly Leu Asp Gly Ala Ala Val Tyr Ala Gly Ala
 485 490 495
 Tyr Pro Gly Trp Phe Thr Val His Gln Asn Tyr Ser Arg Ser Leu Tyr
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<213> Enterobacter cloacae

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 35 40 45
 Thr Pro Glu Pro Thr Ser Pro Ser Val Ala Thr Pro Asn Gly Gln Ala
 50 55 60
 Ala Phe Leu Phe Leu Leu Thr Ser Ala Leu Ala Pro Leu Ile Arg Leu
 65 70 75 80
 Ser Tyr Gly Arg Met Val Trp Met Ala Leu Pro Tyr Thr Leu Val Leu
 85 90 95
 Thr Leu Val Gly Leu Leu Cys Ile Lys Ile Thr Leu Val Pro Cys Thr
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Gln Trp Leu Leu Gln Ala Gly Ile Leu Ala Ala His
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 Ala Cys Asp Gly Ala Glu Thr Leu Arg Thr Val Tyr Leu
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 Ser Lys Lys Leu Glu Thr Ala Met Gly Met Gly Leu Ala Thr Thr Phe
 35 40 45
 Val Met Thr Met Ala Ser Ile Cys Ala Trp Leu Ile Asp Thr Trp Ile
 50 55 60
 Leu Ile Pro Leu Asp Met Leu Tyr Leu Arg Thr Leu Ala Phe Ile Leu
 65 70 75 80
 Val Ile Ala Val Val Val Gln Phe Thr Glu Met Val Val Arg Lys Thr
 85 90 95
 Ser Pro Ala Leu Tyr Arg Leu Leu Gly Ile Phe Leu Pro Leu Ile Thr
 100 105 110
 Thr Asn Cys Ala Val Leu Gly Val Ala Leu Leu Asn Ile Asn Leu Gly
 115 120 125
 His Asn Phe Leu Gln Ser Ala Leu Tyr Gly Phe Ser Ala Ala Val Gly
 130 135 140
 Phe Ser Phe Val Met Val Leu Phe Ala Ser Ile Arg Glu Arg Leu Ala
 145 150 155 160
 Ala Ala Asp Ile Pro Ala Pro Phe Arg Gly Asn Ala Ile Ala Leu Val
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 Thr Ala Gly Leu Met Ser Leu Ala Phe Met Gly Phe Ser Gly Leu Val
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 Lys Leu
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<210> 6946

<211> 702

<212> PRT

<213> Enterobacter cloacae

<400> 6946

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 Arg Pro Phe Arg Phe Ala Ile Phe Leu Trp Asn Asn Met Leu Lys Leu
 20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ser | Ala | Phe | Arg | Lys | Glu | Lys | Ile | Trp | Asp | Phe | Asp | Gly | Gly | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Pro | Pro | Glu | Met | Lys | Ser | Gln | Ser | Asn | Gly | Thr | Pro | Leu | Arg | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Pro | Leu | Ala | Thr | Arg | Tyr | Val | Met | Pro | Leu | Lys | Gln | His | Ile | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Glu | Gly | Glu | Leu | Cys | Val | Lys | Glu | Gly | Asp | Ser | Val | Leu | Arg | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Pro | Leu | Thr | Phe | Gly | Arg | Gly | Arg | Met | Leu | Pro | Ile | His | Ala | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Ser | Gly | Lys | Val | Val | Ala | Val | Ala | Pro | His | Thr | Val | Ala | His | Pro |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Leu | Ser | Glu | Leu | Ser | Val | Ile | Ile | Glu | Ala | Asp | Gly | Glu | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Trp | Ile | Glu | Arg | Asp | Gly | Trp | Ser | Asp | Tyr | Arg | Ser | His | Ser | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Ala | Leu | Ile | Glu | Arg | Ile | His | Gln | Phe | Gly | Val | Ala | Gly | Leu | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Ala | Gly | Phe | Pro | Thr | Gly | Ala | Lys | Leu | His | Gly | Gly | Gly | Asp | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Glu | Thr | Leu | Ile | Ile | Asn | Ala | Ala | Glu | Cys | Glu | Pro | Tyr | Ile | Thr |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Ala | Asp | Asp | Arg | Leu | Met | Gln | Asp | Cys | Ala | Ala | Gln | Val | Val | Glu | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Arg | Ile | Leu | Ala | His | Ile | Leu | Gln | Pro | Arg | Glu | Val | Leu | Ile | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Glu | Asp | Asn | Lys | Pro | Gln | Ala | Ile | Ser | Met | Leu | Arg | Ala | Val | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Asp | Ser | His | Asp | Ile | Ala | Leu | Arg | Val | Ile | Pro | Thr | Lys | Tyr | Pro |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Gly | Gly | Ala | Lys | Gln | Leu | Thr | Gln | Ile | Leu | Thr | Gly | Lys | Gln | Val |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Pro | His | Gly | Gly | Arg | Ser | Ser | Asp | Ile | Gly | Val | Leu | Met | Gln | Asn | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gly | Thr | Ala | Tyr | Ala | Val | Lys | Arg | Ala | Val | Ile | Asp | Gly | Glu | Pro | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Glu | Arg | Val | Val | Thr | Leu | Thr | Gly | Glu | Ser | Val | Ser | Arg | Pro | Gly |
| | | | | 325 | | | | 330 | | | | | | 335 | |
| Asn | Ile | Trp | Ala | Arg | Leu | Gly | Thr | Pro | Val | Arg | His | Leu | Leu | Glu | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Gly | Phe | Cys | Pro | Gly | Asn | Asp | Gln | Leu | Val | Ile | Met | Gly | Gly | Pro |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Met | Gly | Phe | Thr | Leu | Pro | Trp | Leu | Asp | Val | Pro | Val | Val | Lys | Ile |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Thr | Asn | Cys | Leu | Leu | Ala | Pro | Ser | Leu | Thr | Glu | Met | Gly | Glu | Thr | Gln |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Glu | Lys | Gly | Cys | Ile | Arg | Cys | Ser | Ala | Cys | Ala | Asp | Ala | Cys | Pro |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Asp | Leu | Leu | Pro | Gln | Gln | Leu | Tyr | Trp | Tyr | Ser | Lys | Gly | Gln | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| His | Asp | Lys | Ala | Gln | Ala | His | Asn | Leu | Ala | Asp | Cys | Ile | Glu | Cys | Gly |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Cys | Ala | Trp | Val | Cys | Pro | Ser | Asn | Ile | Pro | Leu | Val | Gln | Tyr | Phe |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Arg | Gln | Glu | Lys | Ala | Glu | Ile | Tyr | Ala | Ile | Ser | Met | Glu | Glu | Lys | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Ala | Glu | Ala | Lys | Ala | Arg | Phe | Glu | Ala | Arg | Gln | Ala | Arg | Leu | Glu |
| | | | | 485 | | | | 490 | | | | | | 495 | |
| Arg | Glu | Lys | Gln | Ala | Arg | Gln | Glu | Arg | His | Lys | Gln | Ala | Ala | Val | Gln |
| | | | 500 | | | | | 505 | | | | 510 | | | |
| Pro | Ala | Ala | Lys | Asp | Gln | Asp | Ala | Ile | Asn | Ala | Ala | Leu | Ala | Arg | Val |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Glu | Lys | Lys | Ala | Thr | Ala | Ala | Gln | Thr | Val | Val | Ile | Ala | Pro | Gly |
| 530 | | | | | | 535 | | | | | 540 | | | | |
| Glu | Lys | Pro | Asp | Asn | Ser | Glu | Ala | Ile | Ala | Ala | Arg | Glu | Ala | Arg | Lys |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ala | Glu | Ala | Arg | Ala | Arg | Gln | Ala | Glu | Lys | Ala | Gln | Asn | Ala | Lys | Pro |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Glu | Ala | Asp | Ile | Asp | Pro | Arg | Lys | Ala | Ala | Val | Glu | Ala | Ala | Ile | Ala |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Arg | Ala | Lys | Ala | Arg | Lys | Ala | Gly | Gln | Gln | Thr | Val | Val | Val | Glu | Gln |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Glu | Ala | Thr | Asp | Pro | Arg | Lys | Ala | Ala | Val | Glu | Ala | Ala | Ile | Ala | Arg |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ala | Lys | Ala | Arg | Lys | Ala | Ala | Gln | Leu | Gln | Pro | Ala | Glu | Glu | Ser | Glu |
| 625 | | | | 630 | | | | | | 635 | | | | | 640 |
| Ala | Pro | Val | Asp | Pro | Arg | Lys | Ala | Ala | Val | Glu | Ala | Ala | Ile | Ala | Arg |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Ala | Lys | Ala | Arg | Lys | Ala | Ala | Gln | Gln | Asp | Glu | Leu | Pro | Ala | Ala | Ala |
| | | | 660 | | | | 665 | | | | | | 670 | | |
| Asn | Asp | Asp | Pro | Arg | Lys | Ala | Ala | Val | Ala | Ala | Ala | Ile | Ala | Arg | Val |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Gln | Ala | Lys | Lys | Ala | Ala | Gln | Gln | Ala | Val | Asn | Glu | Asp | | | |
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<213> Enterobacter cloacae

<400> 6947

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ser | Arg | Ile | Met | Met | Leu | Val | Cys | Leu | Ala | Ala | Leu | Pro | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Val | Gln | Cys | Trp | Phe | Phe | Gly | Trp | Gly | Thr | Leu | Phe | Gln | Leu | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Cys | Ala | Ser | Ala | Val | Ala | Ala | Glu | Ala | Ala | Ile | Leu | Lys | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Lys | Met | Glu | Val | Thr | Arg | Ile | Leu | Ser | Asp | Asn | Ser | Ala | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Gly | Leu | Leu | Leu | Ala | Ile | Ser | Ile | Pro | Pro | Phe | Ala | Pro | Trp | Trp |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Met | Val | Val | Leu | Gly | Thr | Val | Phe | Ala | Val | Ile | Ile | Ala | Lys | Gln | Leu |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Tyr | Gly | Gly | Leu | Gly | His | Asn | Pro | Phe | Asn | Pro | Ala | Met | Ile | Gly | Tyr |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Val | Val | Leu | Leu | Ile | Ser | Phe | Pro | Val | Gln | Met | Thr | Ser | Trp | Leu | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | His | Glu | Ile | Ala | Ala | Thr | Val | Pro | Gly | Phe | Met | Asp | Ala | Leu | His |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Ile | Phe | Thr | Gly | His | Thr | Ala | Leu | Gly | Ala | Asp | Met | Asn | Ala | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Met | Gly | Val | Asp | Gly | Ile | Ser | Gln | Ala | Thr | Pro | Leu | Asp | Thr | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Thr | Ser | Leu | Arg | Ala | Gly | Gln | Ser | Val | Glu | Gln | Val | Met | Lys | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Ile | Tyr | Ser | Gly | Val | Leu | Ala | Gly | Ala | Gly | Trp | Gln | Trp | Val | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Ala | Tyr | Leu | Leu | Gly | Gly | Ala | Phe | Leu | Leu | Gln | Gln | Lys | Ala | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Trp | His | Ile | Pro | Val | Ser | Phe | Leu | Val | Thr | Leu | Ala | Val | Cys | Ser |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | 255 | | | | |
| Thr | Leu | Gly | Trp | Val | Ile | Ser | Pro | Glu | Ser | Leu | Ala | Ser | Pro | Gln | Leu | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| His | Leu | Leu | Ser | Gly | Ala | Thr | Met | Leu | Gly | Ala | Phe | Phe | Ile | Leu | Thr | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Asp | Pro | Val | Thr | Ala | Ser | Thr | Thr | Asn | Arg | Gly | Arg | Leu | Ile | Phe | Gly | | |
| | 290 | | | | | 295 | | | | 300 | | | | | | | |
| Ala | Leu | Ala | Gly | Leu | Leu | Val | Trp | Leu | Ile | Arg | Ser | Phe | Gly | Gly | Tyr | | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | | |
| Pro | Asp | Gly | Val | Ala | Phe | Ala | Val | Leu | Leu | Ala | Asn | Ile | Thr | Val | Pro | | |
| | | | 325 | | | | | 330 | | | | | | 335 | | | |
| Leu | Ile | Asp | Tyr | Thr | Arg | Pro | Arg | Val | Tyr | Gly | His | Arg | | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 6948

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| Gly | Val | Thr | Met | Ser | Gln | Val | Lys | Glu | Val | Ile | Val | Gln | Gly | Leu | Trp | | |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Lys | Asn | Asn | Ser | Ala | Leu | Val | Gln | Leu | Gly | Leu | Cys | Pro | Leu | Leu | | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Ala | Val | Thr | Ser | Thr | Ala | Thr | Asn | Ala | Leu | Gly | Leu | Gly | Leu | Ala | Thr | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Thr | Leu | Val | Leu | Thr | Leu | Thr | Asn | Phe | Ser | Ile | Ser | Val | Leu | Arg | Arg | | |
| | 50 | | | 55 | | | | | | 60 | | | | | | | |
| Trp | Thr | Pro | Ser | Glu | Ile | Arg | Ile | Pro | Ile | Tyr | Val | Met | Ile | Ile | Ala | | |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 | | |
| Ser | Val | Val | Ser | Val | Val | Gln | Met | Leu | Ile | Asn | Ala | Tyr | Ala | Phe | Gly | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Leu | Tyr | Gln | Ser | Leu | Gly | Ile | Phe | Ile | Pro | Leu | Ile | Val | Thr | Asn | Cys | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Ile | Val | Val | Gly | Arg | Ala | Glu | Ala | Phe | Ala | Val | Lys | Asn | Asn | Pro | Ala | | |
| | | 115 | | | | 120 | | | | | | 125 | | | | | |
| Ile | Ser | Ala | Leu | Asp | Gly | Phe | Ser | Ile | Gly | Met | Gly | Ala | Thr | Ala | Ala | | |
| | 130 | | | | 135 | | | | | 140 | | | | | | | |
| Met | Phe | Val | Leu | Gly | Ser | Leu | Arg | Glu | Ile | Leu | Gly | Asn | Gly | Thr | Leu | | |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 | | |
| Phe | Asp | Gly | Ala | Asp | Ala | Leu | Leu | Gly | Gly | Trp | Ala | Lys | Ser | Leu | Arg | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Ile | Glu | Val | Phe | His | Thr | Asp | Thr | Pro | Phe | Leu | Leu | Ala | Met | Leu | Pro | | |
| | | 180 | | | | 185 | | | | | | | 190 | | | | |
| Pro | Gly | Ala | Phe | Ile | Gly | Leu | Gly | Met | Met | Leu | Ala | Leu | Lys | Tyr | Leu | | |
| | | 195 | | | | 200 | | | | | | 205 | | | | | |
| Ile | Asp | Glu | Lys | Arg | Lys | Arg | Arg | Ala | Ala | Glu | Arg | Ser | Val | Gln | Glu | | |
| | 210 | | | | 215 | | | | | | 220 | | | | | | |
| Gly | Ile | Pro | Glu | Lys | Ala | Val | | | | | | | | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 6949

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| Thr | Pro | Pro | Leu | Ile | Trp | Asp | Val | Lys | Lys | Glu | Val | Tyr | Val | Ser | Thr | | |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | | | |
| Ala | Asn | Asn | Lys | Pro | Thr | Asp | Glu | Ser | Val | Ser | Leu | Asn | Ala | Phe | Lys | | |
| | | 20 | | | | | 25 | | | | | | 30 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Lys | Ala | Phe | Tyr | Leu | Ile | Phe | Ser | Ile | Glu | Leu | Trp | Glu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Gly | Tyr | Tyr | Gly | Leu | Gln | Gly | Ile | Met | Ala | Val | Tyr | Leu | Val | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Leu | Gly | Met | Ser | Glu | Ala | Asp | Ser | Ile | Thr | Leu | Phe | Ser | Ser | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Ala | Leu | Val | Tyr | Gly | Leu | Val | Ala | Ile | Gly | Gly | Trp | Leu | Gly | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Val | Leu | Gly | Thr | Lys | Arg | Val | Ile | Met | Leu | Gly | Ala | Val | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ile | Gly | Tyr | Gly | Leu | Val | Ala | Trp | Ser | Gly | His | Asp | Ala | Gly | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Tyr | Met | Gly | Met | Ala | Thr | Ile | Ala | Val | Gly | Asn | Gly | Leu | Phe | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Asn | Pro | Ser | Ser | Leu | Leu | Ser | Thr | Cys | Tyr | Ser | Lys | Asp | Asp | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Leu | Asp | Gly | Ala | Phe | Thr | Met | Tyr | Tyr | Met | Ser | Ile | Asn | Ile | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Phe | Phe | Ser | Met | Leu | Ala | Thr | Pro | Trp | Leu | Ala | Ala | Lys | Phe | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Trp | Ser | Val | Ala | Phe | Ala | Leu | Ser | Phe | Val | Gly | Met | Leu | Ile | Thr | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Asn | Phe | Leu | Phe | Cys | Arg | Ser | Trp | Val | Lys | Asp | Tyr | Gly | Ser | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Asp | Phe | Glu | Pro | Val | His | Met | Gly | Lys | Leu | Leu | Ala | Thr | Ile | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ile | Val | Ile | Leu | Ala | Ala | Val | Ala | Thr | Trp | Leu | Leu | His | Asn | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Val | Ala | Arg | Ala | Val | Leu | Gly | Val | Val | Ala | Leu | Gly | Ile | Val | Ile |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Phe | Ala | Lys | Glu | Ala | Phe | Ala | Met | Gln | Gly | Ala | Ala | Arg | Arg | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Met | Ile | Val | Ala | Phe | Ile | Leu | Met | Leu | Glu | Ala | Ile | Ile | Phe | Phe | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Tyr | Ser | Gln | Met | Pro | Thr | Ser | Leu | Asn | Phe | Phe | Ala | Ile | Arg | Asn |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Val | Glu | His | Ser | Ile | Leu | Gly | Ile | Ala | Phe | Glu | Pro | Glu | Gln | Tyr | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Leu | Asn | Pro | Phe | Trp | Ile | Met | Ile | Gly | Ser | Pro | Ile | Leu | Ala | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Tyr | Asn | Lys | Met | Gly | Asp | Arg | Leu | Pro | Met | Pro | His | Lys | Phe | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Gly | Met | Val | Leu | Cys | Ser | Gly | Ala | Phe | Leu | Val | Leu | Pro | Leu | Gly |
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| Thr | Lys | Phe | Ala</ | | | | | | | | | | | | |

<400> 6950

<400> 6951

<210> 6952

<211> 260
 <212> PRT
 <213> Enterobacter cloacae

<400> 6952

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ser | Ala | Arg | Trp | Gln | Ala | Cys | Trp | Ser | Gly | Leu | Phe | Ala | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ala | Ile | Arg | Thr | Ala | Trp | His | Leu | Pro | Cys | Cys | Trp | Leu | Thr | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Phe | Arg | Ser | Ser | Thr | Thr | Thr | Arg | Val | His | Ala | Cys | Thr | Val | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Lys | Gly | Arg | Ala | Met | Leu | Lys | Thr | Met | Gln | Lys | His | Gly | Val | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ala | Ile | Phe | Ala | Ala | Ala | Leu | Thr | Gly | Leu | Thr | Ala | Leu | Val | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Leu | Thr | Lys | Thr | Thr | Ile | Ala | Glu | Gln | Ala | Met | Lys | Gln | Gln | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Leu | Phe | Asp | Gln | Val | Ile | Pro | Ser | Asp | Leu | Tyr | Asp | Asn | Asp | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Lys | Ser | Cys | Phe | Val | Val | Gln | Ala | Pro | Gln | Leu | Gly | Lys | Gly | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Arg | Val | Tyr | Ile | Ala | Arg | Lys | Gly | Asp | Asn | Pro | Val | Gly | Ala | Val |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Met | Glu | Ala | Thr | Ala | Pro | Asp | Gly | Tyr | Ser | Gly | Ala | Ile | Gln | Leu | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Gly | Ser | Asp | Phe | Ser | Gly | Thr | Val | Leu | Gly | Thr | Arg | Val | Thr | Glu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| His | His | Glu | Thr | Pro | Gly | Leu | Gly | Asp | Lys | Ile | Glu | Thr | Arg | Leu | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Asp | Trp | Ile | Leu | His | Phe | Ala | Gly | Lys | Met | Ile | His | Gly | Glu | Asp | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Ala | Phe | Ala | Val | Lys | Lys | Asp | Gly | Gly | Glu | Phe | Asp | Gln | Phe | Thr |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Gly | Ala | Thr | Ile | Thr | Pro | Arg | Ala | Val | Val | Asn | Ala | Val | Lys | Arg | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Leu | Tyr | Ala | Glu | Thr | Leu | Pro | Ala | Gln | Ile | Asn | His | Leu | Ser | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Cys | Glu | Glu | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 260 |

<210> 6953
 <211> 156
 <212> PRT
 <213> Enterobacter cloacae

<400> 6953

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Phe | Ala | Gln | Thr | Met | Gly | Glu | Arg | Met | Thr | Ala | Leu | Pro | Gly | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ile | Gly | Gly | Trp | Leu | Ile | Ala | Pro | Leu | Ala | Trp | Leu | Leu | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Ser | Ala | Ser | Leu | Ala | Leu | Leu | Leu | Tyr | Thr | Thr | Ala | Leu | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Pro | His | Ala | Ile | Gln | Thr | Leu | Met | Ser | Gln | Ser | Ala | Leu | Asn | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ala | Thr | Trp | Phe | Val | Ser | Phe | Val | Phe | Ala | Ile | Ala | Met | Trp | Tyr | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Leu | Trp | Leu | Thr | Ile | Ala | Phe | Phe | Lys | Arg | Arg | Lys | Ser | Val | Pro |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Lys | His | Tyr | Ile | Ile | Trp | Leu | Leu | Val | Ser | Val | Leu | Leu | Ala | Val | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Phe | Ala | Phe | Ser | Pro | Val | Ser | Asp | Ala | Leu | Ala | Val | Arg | Gln | Leu |

| | | |
|-----------------------------|---------------------|-----------------|
| 115 | 120 | 125 |
| Leu Phe Pro Leu Leu Ala Thr | Ala Leu Leu Val Pro | Tyr Phe Lys Arg |
| 130 | 135 | 140 |
| Ser Thr Arg Val Lys Lys | Thr Phe Val Asn Pro | |
| 145 | 150 | 155 |

<210> 6954

<211> 199

<212> PRT

<213> Enterobacter cloacae

<400> 6954

| | |
|---|-------------|
| Trp Ser Gly Glu Val Val Met Ser Ala Ile Trp Ile Ala Ile Ala Ser | |
| 1 | 5 10 15 |
| Ile Ser Val Leu Gly Leu Val Phe Gly Ile Ile Leu Gly Tyr Ala Ser | |
| 20 | 25 30 |
| Arg Arg Phe Ala Val Glu Asp Asp Pro Val Val Glu Lys Ile Asp Glu | |
| 35 | 40 45 |
| Leu Leu Pro Gln Ser Gln Cys Gly Gln Cys Gly Tyr Pro Gly Cys Arg | |
| 50 | 55 60 |
| Pro Tyr Ala Glu Ala Val Gly Val Gln Gly Glu Lys Ile Asn Arg Cys | |
| 65 | 70 75 80 |
| Ala Pro Gly Gly Glu Ala Val Met Leu Lys Ile Ala Ala Leu Leu Asn | |
| 85 | 90 95 |
| Val Asp Pro Gln Pro Val Asp Gly Asp Glu Gln Ala Gln Glu Pro Val | |
| 100 | 105 110 |
| Arg Ala Leu Ala Val Ile Asp Glu Ala Asn Cys Ile Gly Cys Thr Lys | |
| 115 | 120 125 |
| Cys Ile Gln Ala Cys Pro Val Asp Ala Ile Val Gly Ala Thr Arg Ala | |
| 130 | 135 140 |
| Met His Thr Val Val Ala Asp Leu Cys Thr Gly Cys Asn Leu Cys Val | |
| 145 | 150 155 160 |
| Ala Pro Cys Pro Thr Gln Cys Ile Glu Leu Arg Pro Val Glu Thr Thr | |
| 165 | 170 175 |
| Thr Glu Asn Trp Lys Trp Asp Leu Gln Thr Ile Pro Val Arg Asn Ile | |
| 180 | 185 190 |
| Pro Val Glu Gln His Ala | |
| 195 | |

<210> 6955

<211> 224

<212> PRT

<213> Enterobacter cloacae

<400> 6955

| | |
|---|----------|
| Thr Gln Arg Thr Gly Arg Asp Pro Arg Glu Ser Ser Met Asn Lys Glu | |
| 1 | 5 10 15 |
| Lys Arg Ile Ala Ile Leu Thr Arg Leu Arg Asp Glu Asn Pro His Pro | |
| 20 | 25 30 |
| Thr Thr Glu Leu Asn Phe Asn Ser Pro Phe Glu Leu Leu Ile Ala Val | |
| 35 | 40 45 |
| Leu Leu Ser Ala Gln Ala Thr Asp Val Ser Val Asn Lys Ala Thr Ala | |
| 50 | 55 60 |
| Leu Leu Tyr Pro Val Ala Asn Thr Pro Gln Ala Met Leu Glu Leu Gly | |
| 65 | 70 75 80 |
| Val Glu Gly Val Lys Ser Tyr Ile Lys Thr Ile Gly Leu Phe Asn Ser | |
| 85 | 90 95 |
| Lys Ala Glu Asn Val Ile Lys Thr Cys Arg Ile Leu Leu Glu Lys His | |
| 100 | 105 110 |
| Gly Gly Glu Val Pro Glu Asp Arg Ala Ala Leu Glu Ala Leu Pro Gly | |
| 115 | 120 125 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Arg | Lys | Thr | Ala | Asn | Val | Val | Leu | Asn | Thr | Ala | Phe | Gly | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Thr | Ile | Ala | Val | Asp | Thr | His | Ile | Phe | Arg | Val | Ser | Asn | Arg | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Phe | Ala | Pro | Gly | Lys | Asn | Val | Glu | Glu | Val | Glu | Glu | Lys | Leu | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Lys | Val | Val | Pro | Ala | Glu | Phe | Lys | Val | Asp | Cys | His | His | Trp | Leu | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | His | Gly | Arg | Tyr | Thr | Cys | Ile | Ala | Arg | Lys | Pro | Arg | Cys | Gly | Ser |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Cys | Ile | Ile | Glu | Asp | Leu | Cys | Glu | Tyr | Lys | Glu | Lys | Val | Tyr | Pro | |
| | 210 | | | | | 215 | | | | | 220 | | | | |

<210> 6956

<211> 457

<212> PRT

<213> Enterobacter cloacae

<400> 6956

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Pro | Arg | Trp | Arg | Phe | Ile | Leu | Trp | Ser | Phe | Arg | Ile | Arg | Arg |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Lys | Val | Val | Tyr | Arg | Gln | Arg | Cys | Ser | Arg | Leu | Tyr | Met | Glu | Asn | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Ala | Ser | Ser | Asn | Leu | Ile | Lys | Gln | Leu | Gln | Glu | Arg | Gly | Leu | Val |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Ala | Gln | Val | Thr | Asp | Glu | Glu | Ala | Leu | Ala | Glu | Arg | Leu | Ala | Gln | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ile | Ala | Leu | Tyr | Cys | Gly | Phe | Asp | Pro | Thr | Ala | Asp | Ser | Leu | His |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Gly | His | Leu | Val | Pro | Leu | Leu | Cys | Leu | Lys | Arg | Phe | Gln | Met | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | His | Lys | Pro | Val | Ala | Leu | Val | Gly | Gly | Ala | Thr | Gly | Leu | Ile | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Pro | Ser | Phe | Lys | Ala | Ala | Glu | Arg | Lys | Leu | Asn | Thr | Glu | Asp | Thr |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Val | Gln | Glu | Trp | Val | Asp | Lys | Ile | Arg | Lys | Gln | Val | Ala | Pro | Phe | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Phe | Asp | Cys | Gly | Glu | Asn | Ser | Ala | Ile | Ala | Ala | Asn | Asn | Tyr | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Trp | Phe | Gly | Gly | Met | Asn | Val | Leu | Thr | Phe | Leu | Arg | Asp | Ile | Gly | Lys |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| His | Phe | Ser | Val | Asn | Gln | Met | Ile | Asn | Lys | Glu | Ala | Val | Lys | Gln | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Asn | Arg | Asp | Asp | Gln | Gly | Ile | Ser | Phe | Thr | Glu | Phe | Ser | Tyr | Asn |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Leu | Leu | Gln | Gly | Tyr | Asp | Phe | Ala | Cys | Leu | Asn | Lys | Leu | His | Gly | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Leu | Gln | Ile | Gly | Gly | Ser | Asp | Gln | Trp | Gly | Asn | Ile | Thr | Ser | Gly |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Ile | Asp | Leu | Thr | Arg | Arg | Leu | His | Gln | Asn | Gln | Val | Phe | Gly | Leu | Thr |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Val | Pro | Leu | Ile | Thr | Lys | Ala | Asp | Gly | Thr | Lys | Phe | Gly | Lys | Thr | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Gly | Ala | Val | Trp | Leu | Asp | Pro | Lys | Lys | Thr | Ser | Pro | Tyr | Lys | Phe |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Tyr | Gln | Phe | Trp | Ile | Asn | Thr | Ala | Asp | Ala | Asp | Val | Tyr | Arg | Phe | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Phe | Phe | Thr | Phe | Met | Asp | Ile | Glu | Glu | Ile | Asn | Ala | Leu | Glu | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Asp | Lys | Asn | Ser | Gly | Lys | Ala | Pro | Arg | Ala | Gln | Tyr | Val | Leu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |

Asp Glu Val Thr Lys Leu Val His Gly Glu Glu Gly Leu Ala Ala Ala
 340 345 350
 Lys Arg Ile Thr Ala Ser Leu Phe Asn Gly Thr Leu Ser Asp Leu Ser
 355 360 365
 Glu Ala Asp Phe Glu Gln Leu Ala Gln Asp Gly Val Pro Met Val Glu
 370 375 380
 Met Glu Lys Gly Ala Asp Leu Met Gln Ala Leu Val Asp Ser Glu Leu
 385 390 395 400
 Gln Pro Ser Arg Gly Gln Ala Arg Lys Thr Ile Ala Ser Asn Ala Ile
 405 410 415
 Thr Ile Asn Gly Glu Lys Gln Ala Asp Pro Glu Tyr Thr Phe Thr Glu
 420 425 430
 Asn Asp Arg Leu Tyr Gly Arg Tyr Thr Leu Leu Arg Arg Gly Lys Lys
 435 440 445
 Asn Tyr Cys Leu Val Cys Trp Lys
 450 455

<210> 6957

<211> 309

<212> PRT

<213> Enterobacter cloacae

<400> 6957

Leu Lys Val Cys Arg Gly Val Gly Asn His Ala Pro Phe Val Leu Thr
 1 5 10 15
 Gly Phe Gly Lys Tyr Asn Met Lys Asn Ile Leu Ala Ile Gln Ser His
 20 25 30
 Val Val Phe Gly His Ala Gly Asn Ser Ala Ala Glu Phe Pro Met Arg
 35 40 45
 Arg Leu Gly Val Asn Val Trp Pro Leu Asn Thr Val Gln Phe Ser Asn
 50 55 60
 His Thr Gln Tyr Gly Lys Trp Thr Gly Cys Val Met Pro Pro Ser His
 65 70 75 80
 Leu Thr Glu Val Val Gln Gly Val Ala Asp Ile Asp Gln Leu Lys Arg
 85 90 95
 Cys Asp Ala Val Leu Ser Gly Tyr Leu Gly Ser Ala Glu Gln Gly Glu
 100 105 110
 His Ile Leu Gly Ile Val Arg Gln Val Lys Ala Ala Asn Pro Ala Ala
 115 120 125
 Lys Tyr Phe Cys Asp Pro Val Met Gly His Pro Glu Lys Gly Cys Ile
 130 135 140
 Val Ala Pro Gly Val Ala Glu Phe His Val Arg His Ala Leu Pro Ala
 145 150 155 160
 Ser Asp Ile Ile Ala Pro Asn Leu Ile Glu Leu Glu Ile Leu Ser Glu
 165 170 175
 His Pro Val Asn Ser Val Glu Glu Ala Val Ser Ala Ser Arg Glu Leu
 180 185 190
 Ile Ala Gln Gly Pro Glu Ile Val Leu Val Lys His Leu Ala Arg Ala
 195 200 205
 Gly Leu Ser Gln Asp Arg Phe Glu Met Leu Leu Val Thr Lys Asp Glu
 210 215 220
 Ala Trp His Ile Ser Arg Pro Leu Val Asp Phe Gly Ala Arg Gln Pro
 225 230 235 240
 Val Gly Val Gly Asp Val Thr Ser Gly Leu Leu Leu Val Lys Leu Leu
 245 250 255
 Gln Gly Ala Ser Leu Arg Asp Ala Leu Glu His Val Thr Ala Ala Val
 260 265 270
 Tyr Glu Ile Met Ile Ala Thr Lys Thr Met Gln Glu Tyr Glu Leu Gln
 275 280 285
 Val Val Ala Ala Gln Asp Arg Ile Ala Lys Pro Glu His Tyr Phe Ser
 290 295 300

Ala Thr Gln Leu
305

<210> 6958

<211> 378

<212> PRT

<213> Enterobacter cloacae

<400> 6958

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Arg | Met | Lys | Ser | Gly | Arg | Tyr | Ile | Gly | Val | Met | Ser | Gly | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Leu | Asp | Gly | Val | Asp | Val | Val | Leu | Ala | Ala | Ile | Asp | Glu | Asn | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ala | Gln | Gln | Ala | Ser | Leu | Thr | Trp | Pro | Ile | Pro | Val | Ser | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Glu | Ile | Leu | Asn | Ile | Cys | Gln | Gly | Gln | Gln | Leu | Thr | Leu | Ser | Gln |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Gly | Gln | Leu | Asp | Val | Arg | Leu | Gly | Ala | Leu | Phe | Ala | Asp | Ala | Val |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Leu | Ala | Leu | Met | Gln | Glu | Arg | Leu | His | Pro | Gln | Asp | Ile | Val | Ala | |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ile | Gly | Cys | His | Gly | Gln | Thr | Val | Trp | His | Glu | Pro | Val | Gly | Glu | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | His | Thr | Met | Gln | Ile | Gly | Asp | Asn | Asn | Gln | Ile | Val | Ala | Lys | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Val | Thr | Val | Val | Gly | Asp | Phe | Arg | Arg | Arg | Asp | Met | Ala | Leu | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Gly | Gln | Gly | Ala | Pro | Leu | Val | Pro | Ala | Phe | His | Gln | Ala | Leu | Leu | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| His | Pro | Val | Lys | Arg | Met | Met | Val | Leu | Asn | Ile | Gly | Gly | Asn | Pro | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ser | Met | Leu | Ile | Pro | Gly | Gln | Pro | Val | Arg | Gly | Tyr | Asp | Thr | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Gly | Asn | Met | Leu | Met | Asp | Ala | Trp | Ile | Trp | Arg | Gln | Ser | Gly | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Tyr | Asp | Lys | Asp | Ala | Gln | Trp | Ala | Ser | Gln | Gly | Lys | Val | Ile | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Pro | Leu | Leu | Gln | Thr | Leu | Leu | Ser | Asp | Pro | Phe | Phe | Ala | Leu | Pro | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Lys | Ser | Thr | Gly | Arg | Glu | Tyr | Phe | Asn | Tyr | Gly | Trp | Leu | Glu | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Leu | Ala | Arg | Phe | Pro | Gly | Leu | Ala | Pro | Gln | Asp | Val | Gln | Ala | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Thr | Glu | Leu | Thr | Ala | Val | Ser | Ile | Ser | Glu | Gln | Val | Leu | Leu | Ser |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Gly | Cys | Glu | Arg | Leu | Leu | Val | Cys | Gly | Gly | Gly | Ser | Arg | Asn | Pro |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Leu | Val | Met | Ala | Arg | Leu | Ala | Ala | Leu | Leu | Pro | Gly | Thr | Glu | Val | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Thr | Asp | Glu | Ala | Gly | Ile | Ser | Gly | Asp | Asp | Met | Glu | Ala | Leu | Ala |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Phe | Ala | Trp | Leu | Ala | Trp | Arg | Thr | Val | Ala | Gly | Leu | Pro | Gly | Asn | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Ser | Val | Thr | Gly | Ala | Arg | Glu | Ala | Ser | Val | Leu | Gly | Ala | Ile | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Pro | Ala | Asn | Pro | Arg | His | Asn | Gln | Ser | | | | | | | |
| | | 370 | | | | 375 | | | | | | | | | |

<210> 6959

<211> 120

<212> PRT

<213> Enterobacter cloacae

<400> 6959

Ala Leu Gln Asp Gln Asp Ser Leu Arg Asn Leu Pro Met Lys Lys Leu
 1 5 10 15
 Leu Leu Ile Ala Val Pro Phe Leu Met Thr Gly Cys Ser Val Tyr Asn
 20 25 30
 Gln Phe Val Glu Arg Met Gln Thr Asp Thr Leu Glu Tyr Arg Cys Asp
 35 40 45
 Glu Lys Pro Leu Thr Val Lys Leu Asn Asn Pro Arg Gln Glu Ala Ser
 50 55 60
 Phe Val Tyr Asp Asn Lys Leu Leu Thr Leu Lys Gln Gly Met Ser Ala
 65 70 75 80
 Ser Gly Ala Arg Tyr Ser Asp Gly Ile Tyr Val Phe Trp Ser Lys Gly
 85 90 95
 Asp Ser Ala Thr Val Tyr Lys Arg Asp Arg Ile Val Leu Asn Asn Cys
 100 105 110
 Gln Leu Gln Asn Pro Lys Arg
 115 120

<210> 6960

<211> 229

<212> PRT

<213> Enterobacter cloacae

<400> 6960

Arg His Pro Ile Ser Leu Ser Ala Asn Ala Met Ser Asp Asn Asp Glu
 1 5 10 15
 Leu Gln Gln Ile Ala His Leu Arg Arg Glu Tyr Thr Lys Gly Leu
 20 25 30
 Arg Arg Gln Asp Leu Pro Ala Glu Pro Leu Val Leu Phe Glu Arg Trp
 35 40 45
 Leu Lys Gln Ala Cys Glu Thr Lys Leu Val Asp Pro Thr Ala Met Val
 50 55 60
 Val Ala Thr Val Asp Glu Asn Gly Gln Pro Tyr Gln Arg Ile Val Leu
 65 70 75 80
 Leu Lys His Tyr Asp Glu Lys Gly Leu Val Phe Tyr Thr Asn Leu Gly
 85 90 95
 Ser Arg Lys Ala His His Leu Glu Asn Asn Pro Arg Ile Ser Leu Leu
 100 105 110
 Phe Pro Trp His Met Leu Glu Arg Gln Val Met Val Thr Gly Lys Ala
 115 120 125
 Glu Arg Leu Ser Thr Leu Glu Val Val Lys Tyr Phe His Ser Arg Pro
 130 135 140
 Arg Asp Ser Gln Ile Gly Ala Trp Val Ser Lys Gln Ser Ser Arg Ile
 145 150 155 160
 Ser Ala Arg Gly Val Leu Glu Ser Lys Phe Leu Glu Leu Lys Gln Lys
 165 170 175
 Phe Gln Gln Gly Glu Val Pro Leu Pro Ser Phe Trp Gly Gly Phe Arg
 180 185 190
 Ile Pro Ile Glu Gln Met Glu Phe Trp Gln Gly Gly Glu His Arg Leu
 195 200 205
 His Asp Arg Phe Leu Tyr Gln Arg Asp Asn Gly Gly Trp Lys Ile Asp
 210 215 220
 Arg Leu Ala Pro
 225

<210> 6961

<211> 386

<212> PRT

<213> Enterobacter cloacae

<400> 6961

Cys Glu Val Thr Lys Asn Ala Val Val Arg Cys Tyr Phe Asn Ser Gln
 1 5 10 15
 Gly Thr Leu Leu Met Cys Ala Leu Ser Thr Arg Pro Val Ile Asn Lys
 20 25 30
 Arg Thr Ala Arg Gly Lys Thr Met Ser Glu Asn Ile Arg Val Gly Leu
 35 40 45
 Ile Gly Tyr Gly Tyr Ala Ser Lys Thr Phe His Ala Pro Leu Val Ala
 50 55 60
 Gly Thr Pro Gly Met Glu Leu Ala Ala Ile Thr Ser Ser Asp Glu Thr
 65 70 75 80
 Lys Val Arg Ala Asp Trp Pro Ala Val Pro Val Val Thr Glu Pro Lys
 85 90 95
 His Leu Phe Asn Asp Pro Asn Ile Asp Leu Ile Val Ile Pro Thr Pro
 100 105 110
 Asn Asp Thr His Phe Pro Leu Ala Lys Ala Ala Leu Asp Ala Ser Lys
 115 120 125
 His Val Val Val Asp Lys Pro Phe Thr Val Thr Leu Ser Gln Ala Arg
 130 135 140
 Glu Leu Asp Ala Leu Ala Arg Ser Leu Gly Arg Leu Leu Ser Val Phe
 145 150 155 160
 His Asn Arg Arg Trp Asp Ser Asp Phe Leu Thr Val Lys Ala Leu Leu
 165 170 175
 Asn Glu Gly Thr Leu Gly Glu Ile Ala Phe Phe Glu Ser His Phe Asp
 180 185 190
 Arg Tyr Arg Pro Gln Val Arg Asp Arg Trp Arg Glu Gln Ala Gly Pro
 195 200 205
 Gly Ser Gly Ile Trp Tyr Asp Leu Ala Pro His Leu Leu Asp Gln Ala
 210 215 220
 Val His Leu Phe Gly Leu Pro Val Ser Met Thr Val Asp Leu Ala Gln
 225 230 235 240
 Leu Arg Pro Gly Ala Gln Thr Thr Asp Tyr Phe His Ala Ile Leu Ser
 245 250 255
 Tyr Pro Gln Arg Arg Ile Val Leu His Gly Thr Met Leu Ala Ala Ala
 260 265 270
 Glu Ser Ala Arg Tyr Ile Ile His Gly Ala Arg Gly Ser Tyr Val Lys
 275 280 285
 Phe Gly Leu Asp Pro Gln Glu Glu Arg Leu Lys Asn Gly Glu Arg Leu
 290 295 300
 Pro Gln Glu Asp Trp Gly Tyr Asp Met Arg Asp Gly Val Val Thr Arg
 305 310 315 320
 Ala Glu Gly Glu Ala Leu Val Glu Glu Thr Val Leu Thr Leu Pro Gly
 325 330 335
 Asn Tyr Pro Ala Tyr Tyr Ala Ala Ile Arg Asp Ala Leu Asn Gly Ser
 340 345 350
 Gly Glu Asn Pro Val Pro Ala Ser Gln Ala Ile Gln Ile Met Glu Leu
 355 360 365
 Ile Glu Leu Gly Ile Glu Ser Ala Lys His Arg Ala Thr Leu Cys Leu
 370 375 380

Ala

385

<210> 6962

<211> 258

<212> PRT

<213> Enterobacter cloacae

<400> 6962

Phe Lys Arg Ile Ala Val Gly Gln Leu Ala Glu Glu Lys Asp Gly Ile
 1 5 10 15

Met Ile Ser Leu Lys Asn Val Ser Lys Trp Tyr Gly His Phe Gln Val
 20 25 30
 Leu Thr Asp Cys Ser Thr Glu Val Lys Lys Gly Asp Val Val Val
 35 40 45
 Cys Gly Pro Ser Gly Ser Gly Lys Ser Thr Leu Ile Lys Thr Val Asn
 50 55 60
 Gly Leu Glu Pro Val Gln Gln Gly Glu Ile Val Val Asn Gly Thr Lys
 65 70 75 80
 Val Asn Asp Arg Lys Thr Asn Leu Ala Gln Leu Arg Ser His Val Gly
 85 90 95
 Met Val Phe Gln His Phe Glu Leu Phe Pro His Leu Ser Ile Ile Glu
 100 105 110
 Asn Leu Thr Leu Ala Gln Val Lys Val Leu Lys Arg Asp Lys Lys Ala
 115 120 125
 Ala Arg Glu Lys Gly Leu Lys Leu Leu Glu Arg Val Gly Leu Ser Ala
 130 135 140
 His Ala Asp Lys Phe Pro Ala Gln Leu Ser Gly Gly Gln Gln Gln Arg
 145 150 155 160
 Val Ala Ile Ala Arg Ala Leu Cys Met Asp Pro Val Ala Met Leu Phe
 165 170 175
 Asp Glu Pro Thr Ser Ala Leu Asp Pro Glu Met Ile Asn Glu Val Leu
 180 185 190
 Asp Val Met Val Glu Leu Ala His Glu Gly Met Thr Met Met Val Val
 195 200 205
 Thr His Glu Met Gly Phe Ala Arg Lys Val Pro Asn Arg Val Ile Phe
 210 215 220
 Met Asp Glu Gly Lys Ile Val Glu Asp Ser Pro Lys Glu Glu Phe Phe
 225 230 235 240
 Ala Asn Pro Lys Ser Glu Arg Ala Lys Asp Phe Leu Ala Lys Ile Leu
 245 250 255
 His

<210> 6963

<211> 178

<212> PRT

<213> Enterobacter cloacae

<400> 6963

Thr Ala Ile Leu Asn Cys Thr Ala Thr Leu Ala Arg Ile Val Ile Met
 1 5 10 15
 Gly Gly Ala Met Gly Leu Gly Asn Trp Thr Pro Ala Ala Glu Phe Asn
 20 25 30
 Ile Phe Val Asp Pro Glu Ala Ala Glu Ile Val Phe Gln Ser Gly Leu
 35 40 45
 Pro Ile Val Met Ala Gly Leu Asp Val Thr His Arg Ala Gln Ile Met
 50 55 60
 Val Gln Asp Ile Glu Arg Phe Arg Thr Val Gly Asn Pro Val Ala Thr
 65 70 75 80
 Thr Val Ala Glu Leu Leu Asp Phe Phe Met Glu Tyr His Lys Ala Glu
 85 90 95
 Lys Trp Gly Phe His Gly Ala Pro Leu His Asp Pro Cys Thr Ile Ala
 100 105 110
 Trp Leu Leu Lys Pro Glu Met Phe Thr Thr Val Glu Arg Trp Val Gly
 115 120 125
 Val Glu Thr Gln Gly Lys Tyr Thr Gln Gly Met Thr Val Val Asp Tyr
 130 135 140
 Tyr Ser Leu Thr Gly Asn Lys Pro Asn Thr Thr Val Met Val Asp Ile
 145 150 155 160
 Asp Arg Glu Ala Phe Val Asp Leu Leu Ala Glu Arg Leu Ala Tyr Tyr
 165 170 175

Met

<210> 6964
 <211> 169
 <212> PRT
 <213> Enterobacter cloacae

<400> 6964
 Tyr Phe Phe Thr Thr Glu Lys Asn Glu Met Thr Ile Pro Ala His Ile
 1 5 10 15
 Trp Leu Ile Asp Asp Asn Gly Ser Pro Leu Ile Gly Glu Cys Leu Met
 20 25 30
 Pro Ser Arg Leu Gly Ser Thr Glu Leu Lys Ser Phe Asp His Ser Val
 35 40 45
 Trp Ile Pro Thr Asp His Asn Thr Gly Lys Leu Thr Gly Thr Arg Leu
 50 55 60
 His Val Pro Ile Arg Phe Lys Lys Glu Ile Asp Arg Leu Thr Pro Tyr
 65 70 75 80
 Leu Phe Arg Ala Val Cys Glu Gly Arg Ile Leu Lys Glu Ala Leu Ile
 85 90 95
 Lys Met Tyr Lys Ile Asn Asp Ala Gly Ile Glu Leu Glu Tyr Phe Asn
 100 105 110
 Ile Lys Leu Glu Asn Val Lys Ile Thr Gln Ile Ser Pro Val Leu Phe
 115 120 125
 Pro Val Gly Ile Ala Ser Lys His Met Glu Glu Val Glu Ile Arg Tyr
 130 135 140
 Glu Ser Ile Glu Trp Lys Tyr Thr Glu Gly Asn Ile Met Tyr Lys Asp
 145 150 155 160
 Ser Trp Asn Glu Arg Val Thr Ala
 165

<210> 6965
 <211> 345
 <212> PRT
 <213> Enterobacter cloacae

<400> 6965
 Leu Met Ile Arg Leu Tyr Pro Glu Gln Leu Arg Ala Gln Leu Asn Glu
 1 5 10 15
 Gly Leu Arg Ala Ala Tyr Leu Leu Leu Gly Asn Asp Pro Leu Leu Leu
 20 25 30
 Gln Glu Ser Leu Asp Ala Val Arg His Ala Ala Ala Gln Gly Phe
 35 40 45
 Asp Glu His His Thr Phe Gln Ile Asp Asn Ser Thr Asp Trp Asn Ala
 50 55 60
 Ile Phe Ser Leu Cys Gln Ala Met Ser Leu Phe Ala Ser Arg Gln Thr
 65 70 75 80
 Ile Gln Ile Leu Leu Pro Glu Asn Gly Pro Asn Ala Ala Ile Asn Glu
 85 90 95
 Gln Leu Ala Met Leu Val Ser Leu Leu His Gly Asp Leu Leu Leu Ile
 100 105 110
 Val Arg Gly Asn Lys Leu Thr Lys Ala Gln Glu Asn Ala Ala Trp Phe
 115 120 125
 Thr Arg Leu Thr Pro Ser Ala Val Leu Val Ser Cys Gln Thr Pro Glu
 130 135 140
 Gln Ala His Leu Pro Lys Trp Val Ala Ala Arg Ala Lys Gln His Asn
 145 150 155 160
 Leu Gln Leu Asp Glu Ala Ala Ser Gln Leu Leu Cys Tyr Cys Tyr Glu
 165 170 175
 Gly Asn Leu Leu Ala Leu Ala Gln Ala Leu Asp Arg Leu Ala Leu Leu


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<210> 6966
<211> 638
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <400> | 6966 | | | | | | | | | | | | | | |
| Phe 1 | Lys | Gln | Arg | Met 5 | Lys | Leu | Gln | Asn 10 | Ser | Phe | Arg | Asp | Tyr 15 | Thr | Ala |
| Glu | Ser | Ala | Leu 20 | Phe | Val | Arg | Arg | Ala 25 | Leu | Val | Ala | Phe | Thr 30 | Gly | Ile |
| Leu | Leu | Leu 35 | Thr | Gly | Val | Leu | Ile 40 | Ala | Asn | Leu | Tyr | Asn 45 | Leu | Gln | Ile |
| Val | Arg 50 | Tyr | Thr | Asp | Tyr | Gln 55 | Thr | Arg | Ser | Asn 60 | Glu | Asn | Arg | Ile | Lys |
| Leu 65 | Val | Pro | Ile | Ala | Pro 70 | Ser | Arg | Gly | Ile | Ile 75 | Tyr | Asp | Arg | Asn | Gly 80 |
| Thr | Pro | Leu | Ala 85 | Leu | Asn | Arg | Thr | Ile | Tyr 90 | Gln | Ile | Glu | Met 95 | Met | Pro |
| Glu | Lys | Val | Asp 100 | Asn | Val | Gln | Asp | Thr 105 | Leu | Asn | Ala | Leu | Arg 110 | Ser | Val |
| Val | Asp | Leu 115 | Thr | Asp | Asp | Asp | Ile 120 | Ala | Ala | Phe | Lys | Lys 125 | Glu | Arg | Ala |
| Arg | Ser 130 | His | Arg | Phe | Thr | Ser 135 | Ile | Pro | Val | Lys | Thr 140 | Asn | Leu | Thr | Glu |
| Val 145 | Gln | Val | Ala | Arg | Phe 150 | Ala | Val | Asn | Gln | Tyr 155 | Arg | Phe | Pro | Gly | Val 160 |
| Glu | Val | Lys | Gly 165 | Tyr | Lys | Arg | Arg | Tyr | Tyr 170 | Pro | Tyr | Gly | Ser 175 | Ala | Leu |
| Thr | His | Val 180 | Ile | Gly | Tyr | Val | Ser | Lys 185 | Ile | Asn | Asp | Lys | Asp 190 | Val | Glu |
| Arg | Leu | Asp 195 | Lys | Asp | Gly | Lys | Leu 200 | Ala | Asn | Tyr | Ala | Ala 205 | Thr | His | Asp |
| Ile | Gly 210 | Lys | Leu | Gly | Ile | Glu 215 | Arg | Tyr | Tyr | Glu | Asp 220 | Val | Leu | His | Gly |
| Gln 225 | Thr | Gly | Tyr | Glu 230 | Glu | Val | Glu | Val | Asn | Asn 235 | Arg | Gly | Arg | Val | Ile 240 |
| Arg | Gln | Leu | Lys 245 | Glu | Val | Pro | Pro | Gln | Ala 250 | Gly | His | Asp | Val | Tyr 255 | Leu |
| Thr | Leu | Asp | Leu | Lys | Leu | Gln | Gln | Tyr | Ile | Glu | Thr | Leu | Leu | Ala | Gly |


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<210> 6967
<211> 176
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Pro | Gly | Leu | Val | Ser | Ser | Cys | Arg | Ser | Ile | Pro | Thr | Gly | Lys | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Pro | Lys | Ala | Tyr | Lys | Asn | Lys | Gly | Ile | Ala | Met | Arg | Lys | Gln | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Gly | Ile | Cys | Ile | Ala | Ala | Ser | Leu | Leu | Ala | Ala | Cys | Thr | Ser | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Gly | Gln | Gln | Gln | Ala | Thr | Val | Ala | Pro | Pro | Gln | Pro | Ala | Val | Cys |

| | | | | |
|---------------------|---|---------------------|-----|----|
| 50 | | 55 | | 60 |
| Asn Gly Pro Ile Val | Glu Ile Ser Gly Ala Asp | Pro Val Tyr Glu Pro | | |
| 65 | 70 | 75 | 80 | |
| Leu Asn Ala Ser Val | Asn Gln Asp Tyr Gln Arg Asp Gly Lys Ser Tyr | | | |
| | 85 | 90 | 95 | |
| Lys Ile Val Gln Asp | Pro Ser Arg Phe Ser Gln Ala Gly Phe Ala Ala | | | |
| | 100 | 105 | 110 | |
| Ile Tyr Asp Ala Glu | Pro Gly Ser Asn Leu Thr Ala Ser Gly Glu Thr | | | |
| | 115 | 120 | 125 | |
| Phe Asp Pro Met Gln | Ile Thr Ala Ala His Pro Thr Leu Pro Val Pro | | | |
| | 130 | 135 | 140 | |
| Ser Tyr Ala Arg Ile | Thr Asn Leu Ala Asn Gly Arg Met Ile Val Val | | | |
| 145 | 150 | 155 | 160 | |
| Arg Ile Thr Leu His | His Val Ala Arg Ser Leu Arg Pro Ser Asn | | | |
| | 165 | 170 | 175 | |

<210> 6968

<211> 276

<212> PRT

<213> Enterobacter cloacae

<400> 6968

| | | | |
|---------------------|---|-----|-----|
| Val Val Val Pro His | Ser Ala Gln Lys Leu Ser Phe Ser Pro Ile Phe | | |
| 1 | 5 | 10 | 15 |
| Glu Gly Ser Ala Ala | Thr Leu Phe Phe Leu Glu Phe Thr Met Ser Ile | | |
| | 20 | 25 | 30 |
| Asp Trp Asn Trp Gly | Ile Phe Leu Gln Gln Ala Pro Phe Gly Asn Thr | | |
| | 35 | 40 | 45 |
| Thr Tyr Leu Gly Trp | Leu Trp Ser Gly Phe Gln Val Thr Val Ala Leu | | |
| | 50 | 55 | 60 |
| Ser Ile Thr Ala Trp | Ile Ile Ala Phe Leu Val Gly Ser Leu Phe Gly | | |
| 65 | 70 | 75 | 80 |
| Ile Leu Arg Thr Val | Pro Asn Arg Phe Leu Ser Ser Ile Gly Thr Leu | | |
| | 85 | 90 | 95 |
| Tyr Val Glu Leu Phe | Arg Asn Val Pro Leu Ile Val Gln Phe Phe Thr | | |
| | 100 | 105 | 110 |
| Trp Tyr Leu Val Ile | Pro Glu Leu Pro Glu Asp Leu Gly Met Trp | | |
| | 115 | 120 | 125 |
| Phe Lys Ala Glu Leu | Asp Pro Asn Val Gln Phe Phe Val Ser Ser Met | | |
| | 130 | 135 | 140 |
| Leu Cys Leu Gly Leu | Phe Thr Ala Ala Arg Val Cys Glu Gln Val Arg | | |
| 145 | 150 | 155 | 160 |
| Ala Ala Ile Gln Ser | Leu Pro Arg Gly Gln Lys Asn Ala Ala Leu Ala | | |
| | 165 | 170 | 175 |
| Met Gly Leu Thr Leu | Pro Gln Ala Tyr Arg Tyr Val Leu Leu Pro Asn | | |
| | 180 | 185 | 190 |
| Ala Tyr Arg Val Ile | Val Pro Pro Met Thr Ser Glu Met Met Asn Leu | | |
| | 195 | 200 | 205 |
| Val Lys Asn Ser Ala | Ile Ala Ser Thr Ile Gly Leu Val Asp Met Ala | | |
| | 210 | 215 | 220 |
| Ala Gln Ala Gly Lys | Leu Leu Asp Tyr Ser Ala His Ala Trp Glu Ser | | |
| 225 | 230 | 235 | 240 |
| Phe Thr Ala Ile Thr | Leu Ala Tyr Val Leu Ile Asn Ala Phe Ile Met | | |
| | 245 | 250 | 255 |
| Leu Val Met Asn Leu | Val Glu Arg Lys Val Arg Leu Pro Gly Asn Leu | | |
| | 260 | 265 | 270 |
| Gly Gly Lys | | | |
| 275 | | | |

<210> 6969

<211> 225

<212> PRT

<213> Enterobacter cloacae

<400> 6969

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Asp | Phe | Asp | Trp | Ser | Ser | Ile | Val | Pro | Ser | Met | Pro | Tyr | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Asp | Gly | Leu | Ala | Ile | Thr | Leu | Lys | Ile | Thr | Val | Ile | Ala | Ile | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Gly | Ile | Val | Trp | Gly | Thr | Leu | Leu | Ala | Val | Met | Arg | Leu | Ser | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Phe | Lys | Pro | Leu | Ala | Trp | Phe | Ala | Thr | Ala | Tyr | Val | Asn | Val | Phe | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ile | Pro | Leu | Val | Met | Val | Leu | Leu | Trp | Phe | Tyr | Leu | Ile | Val | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Phe | Leu | Gln | Asn | Val | Leu | Gly | Leu | Ser | Pro | Lys | Thr | Asp | Ile | Arg |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Leu | Ile | Ser | Ala | Met | Val | Ala | Phe | Ser | Met | Phe | Glu | Ala | Ala | Tyr | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Glu | Ile | Ile | Arg | Ala | Gly | Ile | Gln | Ser | Ile | Ser | Arg | Gly | Gln | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Ala | Leu | Ala | Leu | Gly | Met | Thr | His | Trp | Gln | Ser | Met | Lys | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Ile | Leu | Pro | Gln | Ala | Phe | Arg | Ala | Met | Val | Pro | Leu | Leu | Leu | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Gly | Ile | Val | Leu | Phe | Gln | Asp | Thr | Ser | Leu | Val | Tyr | Val | Leu | Ser |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Leu | Ala | Asp | Phe | Phe | Arg | Thr | Ala | Ser | Thr | Ile | Gly | Glu | Arg | Asp | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Gln | Val | Glu | Met | Ile | Leu | Phe | Ala | Gly | Gly | Val | Tyr | Phe | Val | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Leu | Ser | Ala | Ser | Leu | Leu | Val | Ser | Trp | Leu | Lys | Lys | Arg | Thr | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |

225

<210> 6970

<211> 203

<212> PRT

<213> Enterobacter cloacae

<400> 6970

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Glu | Ser | Gly | Arg | Trp | Leu | Ser | Ala | Gly | Gly | Asn | Val | Arg | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ala | Thr | Ile | Leu | Leu | Ser | Leu | Ala | Val | Leu | Val | Thr | Ala | Gly | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Trp | His | Leu | Arg | Asn | Thr | Thr | Ala | Val | Pro | Ala | Gln | Met | Lys | Thr |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Met | Ile | Phe | Asp | Ser | Ser | Asp | Pro | Asn | Gly | Pro | Leu | Ser | Arg | Ala | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Asn | Gln | Leu | Arg | Leu | Asn | Asp | Val | Glu | Leu | Ile | Glu | Lys | Gly | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Arg | Gln | Asp | Val | Pro | Ser | Leu | Arg | Val | Leu | Lys | Ser | Thr | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Asp | Thr | Ala | Ser | Ile | Phe | Gln | Asp | Gly | Arg | Thr | Ala | Glu | Tyr | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Val | Leu | Thr | Val | Ser | Ala | Ala | Val | Leu | Met | Pro | Gly | Lys | Asp | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Pro | Ile | Ser | Thr | Lys | Val | Tyr | Arg | Ser | Phe | Phe | Asp | Asn | Pro | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Ala | Leu | Ala | Lys | Asp | Ala | Glu | Glu | Gln | Ile | Ile | Ile | Lys | Glu | Met |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Tyr Asp Lys Ala Ala Glu Gln Leu Ile Arg Lys Leu Pro Thr Ile Ala
 165 170 175
 Ala Ser Thr Lys Lys Gly Ala Asp Val Ile Glu Thr Pro Asp Ala Arg
 180 185 190
 Thr Pro Asp Met Pro Thr Ser Leu Gly Asn
 195 200

<210> 6971

<211> 251

<212> PRT

<213> Enterobacter cloacae

<400> 6971

Asn Arg Ile Thr Val Ser Leu Ser Gly Arg Ser Trp Arg Val Ser Leu
 1 5 10 15
 Cys Cys Ser Ala Ile Arg Leu Trp Gln Thr Tyr Leu Ser Met Gly Asp
 20 25 30
 Met His Ser Leu Gln Ala Met Tyr Gly Gly Thr Phe Asp Pro Val His
 35 40 45
 Tyr Gly His Leu Lys Pro Val Glu Ile Leu Ala Asn Leu Ile Gly Leu
 50 55 60
 Gln Arg Val Ile Ile Met Pro Asn Asn Val Pro Pro His Arg Pro Gln
 65 70 75 80
 Pro Glu Ala Thr Ser Glu Gln Arg Lys Ala Met Leu Ala Leu Ala Ile
 85 90 95
 Ala Asp Lys Pro Leu Phe Thr Leu Asp Glu Arg Glu Leu Arg Arg Asp
 100 105 110
 Thr Pro Ser Trp Thr Ser Gln Thr Leu Arg Glu Trp Arg Ala Glu Gln
 115 120 125
 Gly Pro Met Lys Pro Leu Ala Phe Ile Ile Gly Gln Asp Ser Leu Leu
 130 135 140
 Asn Phe Pro Ser Trp Tyr Gln Tyr Glu Thr Ile Leu Glu Asn Ser His
 145 150 155 160
 Leu Leu Val Cys Arg Arg Pro Gly Tyr Pro Leu Thr Met Arg Asp Ala
 165 170 175
 Gln His Gln Gln Trp Leu Asp Ala His Leu Thr Asp Asn Ile Glu Asp
 180 185 190
 Leu His Ser Leu Pro Ala Gly Lys Ile Tyr Leu Ala Glu Thr Pro Trp
 195 200 205
 Phe Asp Ile Ser Ala Thr Leu Ile Arg Glu Arg Leu Gln Gln Gly Leu
 210 215 220
 Asp Cys Asp Asp Leu Leu Pro Ser Pro Val Leu Ala Tyr Ile Leu Ala
 225 230 235 240
 His Gly Leu Tyr Gln Lys Ser Thr Asp Val
 245 250

<210> 6972

<211> 84

<212> PRT

<213> Enterobacter cloacae

<400> 6972

Asp Asn Trp Glu Ile Val Gly Thr Ala Gln Ser Lys Glu Ala Tyr Gly
 1 5 10 15
 Cys Met Leu Arg Lys Gly Asp Glu Asp Phe Lys Lys Leu Ile Asp Asp
 20 25 30
 Thr Ile Ala Gln Ala Gln Thr Ser Gly Glu Ala Ala Lys Trp Phe Asp
 35 40 45
 Lys Trp Phe Lys Asn Pro Ile Pro Pro Lys Asn Leu Asn Met Asn Phe
 50 55 60
 Glu Leu Ser Asp Asp Met Lys Ala Leu Phe Lys Ser Pro Asn Asp Lys

65
Ala Leu Asn

70

75

80

<210> 6973
<211> 194
<212> PRT
<213> Enterobacter cloacae

<400> 6973

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Phe | Ser | Ile | Arg | Arg | His | Ile | Ala | Ala | Leu | Thr | Leu | Ser | Gln |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ile | Met | Leu | Arg | Met | Glu | Asn | Ala | Met | Ala | Gln | Pro | Ile | Ile | Leu | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Cys | Asp | Pro | Gly | His | Asp | Asp | Ala | Ile | Ala | Leu | Val | Leu | Ala | Leu | Ala |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Ser | Pro | Glu | Leu | Asp | Val | Lys | Ala | Val | Thr | Ser | Ser | Ala | Gly | Asn | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Pro | Asp | Lys | Thr | Leu | Arg | Asn | Val | Leu | Arg | Met | Leu | Thr | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Arg | Thr | Asp | Ile | Pro | Val | Ala | Gly | Gly | Ala | Val | Lys | Pro | Leu | Met |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Arg | Glu | Leu | Ile | Ile | Ala | Asp | Asn | Val | His | Gly | Glu | Ser | Gly | Leu | Asp |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gly | Pro | Ala | Leu | Pro | Glu | Pro | Asp | Phe | Ala | Pro | Gln | Asn | Cys | Thr | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Glu | Leu | Met | Ala | Lys | Val | Leu | Arg | Glu | Ser | Ala | Glu | Pro | Val | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Val | Ala | Thr | Gly | Pro | Gln | Thr | Asn | Val | Ala | Leu | Leu | Leu | Asn | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Pro | Glu | Leu | His | Ser | Asn | Thr | Arg | Pro | Tyr | Arg | His | His | Gly | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Gly | Asn | Gly | Ala | Gly | Glu | Leu | Asp | Ala | Ser | Ser | Arg | Val | Gln | His | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |

Arg

<210> 6974
<211> 904
<212> PRT
<213> Enterobacter cloacae

<400> 6974

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Pro | Ala | Lys | Cys | Ile | Cys | Val | Lys | Gly | Cys | Phe | Asp | Ala | Gly | Val |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Trp | Ala | Met | Leu | Cys | Gly | Ser | Glu | Leu | Pro | His | Pro | Leu | Ala | Thr | Phe |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Val | Ala | Val | Leu | Asn | Thr | Gly | Pro | Leu | Ala | Ala | Met | Gln | Glu | Gln | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Pro | Glu | Glu | Ile | Glu | Ser | Lys | Val | Gln | Gln | His | Trp | Asp | Glu | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Thr | Phe | Glu | Val | Thr | Glu | Asp | Glu | Ser | Lys | Glu | Lys | Tyr | Tyr | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Ser | Met | Leu | Pro | Tyr | Pro | Ser | Gly | Arg | Leu | His | Met | Gly | His | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Arg | Asn | Tyr | Thr | Ile | Gly | Asp | Val | Ile | Ala | Arg | Tyr | Gln | Arg | Met | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gly | Lys | Asn | Val | Leu | Gln | Pro | Ile | Gly | Trp | Asp | Ala | Phe | Gly | Leu | Pro |
| | | 115 | | | | | 120 | | | | 125 | | | | |
| Ala | Glu | Gly | Ala | Ala | Val | Lys | Asn | Asn | Thr | Ala | Pro | Ala | Pro | Trp | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Asp | Asn | Ile | Ala | Tyr | Met | Lys | Asn | Gln | Leu | Lys | Met | Leu | Gly | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Tyr | Asp | Trp | Ser | Arg | Glu | Leu | Ala | Thr | Cys | Thr | Pro | Glu | Tyr | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Trp | Glu | Gln | Lys | Phe | Phe | Thr | Glu | Leu | Tyr | Lys | Lys | Gly | Leu | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Tyr | Lys | Lys | Thr | Ser | Ala | Val | Asn | Trp | Cys | Pro | Asn | Asp | Gln | Thr | Val |
| | | 195 | | | | | 200 | | | | 205 | | | | |
| Leu | Ala | Asn | Glu | Gln | Val | Ile | Asp | Gly | Cys | Cys | Trp | Arg | Cys | Asp | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Val | Glu | Arg | Lys | Glu | Ile | Pro | Gln | Trp | Phe | Ile | Lys | Ile | Thr | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Tyr | Ala | Asp | Glu | Leu | Leu | Asn | Asp | Leu | Asp | Asn | Leu | Asp | His | Trp | Pro |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Thr | Val | Lys | Thr | Met | Gln | Arg | Asn | Trp | Ile | Gly | Arg | Ser | Glu | Gly |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Val | Glu | Ile | Thr | Phe | Asn | Val | Glu | Asn | Tyr | Asp | Gln | Thr | Leu | Thr | Val |
| | | 275 | | | | | | 280 | | | | 285 | | | |
| Tyr | Thr | Thr | Arg | Pro | Asp | Thr | Phe | Met | Gly | Ala | Thr | Tyr | Leu | Ala | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Ala | Gly | His | Pro | Leu | Ala | Gln | Asn | Ala | Ala | Glu | Asn | Asn | Pro | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Ala | Thr | Phe | Ile | Asp | Glu | Cys | Arg | Asn | Thr | Lys | Val | Ala | Glu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Asp | Met | Ala | Thr | Met | Glu | Lys | Lys | Gly | Val | Asp | Thr | Gly | Phe | Lys | Ala |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Ile | His | Pro | Leu | Thr | Gly | Glu | Ala | Ile | Pro | Val | Trp | Ala | Ala | Asn | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Val | Leu | Met | Glu | Tyr | Gly | Thr | Gly | Ala | Val | Met | Ala | Val | Pro | Gly | His |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asp | Gln | Arg | Asp | Tyr | Glu | Phe | Ala | Thr | Lys | Tyr | Gly | Leu | Thr | Ile | Lys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | Val | Ile | Leu | Ala | Ala | Asp | Gly | Ser | Glu | Pro | Asp | Leu | Ser | Glu | Gln |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Leu | Thr | Glu | Lys | Gly | Thr | Leu | Phe | Asn | Ser | Gly | Glu | Phe | Ser | Gly |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Ser | Phe | Glu | Glu | Gly | Phe | Asn | Ala | Ile | Ala | Asp | Lys | Leu | Ala | Ser |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Leu | Gly | Val | Gly | Glu | Arg | Lys | Val | Asn | Tyr | Arg | Leu | Arg | Asp | Trp | Gly |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Val | Ser | Arg | Gln | Arg | Tyr | Trp | Gly | Ala | Pro | Ile | Pro | Met | Val | Thr | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Glu | Asp | Gly | Thr | Val | Met | Pro | Thr | Pro | Glu | Asp | Gln | Leu | Pro | Val | Ile |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Leu | Pro | Glu | Asp | Val | Val | Met | Asp | Gly | Ile | Thr | Ser | Pro | Ile | Lys | Ala |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Asp | Pro | Glu | Trp | Ala | Lys | Thr | Thr | Val | Asn | Gly | Gln | Pro | Ala | Leu | Arg |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Glu | Thr | Asp | Thr | Phe | Asp | Thr | Phe | Met | Glu | Ser | Ser | Trp | Tyr | Tyr | Ala |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Arg | Tyr | Thr | Cys | Pro | Gln | Tyr | Lys | Glu | Gly | Met | Leu | Asp | Ser | Asp | Ala |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ala | Asn | Tyr | Trp | Leu | Pro | Val | Asp | Ile | Tyr | Ile | Gly | Gly | Ile | Glu | His |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Ala | Ile | Met | His | Leu | Leu | Tyr | Phe | Arg | Phe | Phe | His | Lys | Leu | Met | Arg |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Asp | Ala | Gly | Leu | Val | Asn | Ser | Asp | Glu | Pro | Ala | Lys | Gln | Leu | Leu | Cys |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Gln | Gly | Met | Val | Leu | Ala | Asp | Ala | Phe | Tyr | Tyr | Val | Gly | Ala | Asn | Gly |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Glu | Arg | Asn | Trp | Val | Ser | Pro | Val | Asp | Ala | Ile | Val | Glu | Arg | Asp | Glu |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 625 | | | | | 630 | | | | | 635 | | | | 640 |
| Lys | Gly | Arg | Ile | Val | Lys | Ala | Lys | Asp | Ala | Glu | Gly | His | Glu | Leu |
| | | | | 645 | | | | | 650 | | | | | 655 |
| Tyr | Thr | Gly | Met | Ser | Lys | Met | Ser | Lys | Ser | Lys | Asn | Asn | Gly | Ile |
| | | | 660 | | | | | 665 | | | | | 670 | Asp |
| Pro | Gln | Val | Met | Val | Glu | Arg | Tyr | Gly | Ala | Asp | Thr | Val | Arg | Leu |
| | | 675 | | | | | 680 | | | | | 685 | | Phe |
| Met | Met | Phe | Ala | Ser | Pro | Ala | Asp | Met | Thr | Leu | Glu | Trp | Gln | Glu |
| | 690 | | | | | 695 | | | | | 700 | | | Ser |
| Gly | Val | Glu | Gly | Ala | Asn | Arg | Phe | Leu | Lys | Arg | Val | Trp | Lys | Leu |
| 705 | | | | 710 | | | | | | 715 | | | | 720 |
| Tyr | Glu | His | Thr | Ser | Gln | Gly | Asp | Ala | Pro | Ala | Leu | Asn | Val | Ala |
| | | | | 725 | | | | | 730 | | | | | 735 |
| Leu | Thr | Glu | Asp | Gln | Gln | Ala | Leu | Arg | Arg | Asp | Val | His | Lys | Thr |
| | | | 740 | | | | | 745 | | | | | 750 | Ile |
| Ala | Lys | Val | Thr | Asp | Asp | Ile | Gly | Arg | Arg | Gln | Thr | Phe | Asn | Thr |
| | | 755 | | | | | 760 | | | | | 765 | | Ala |
| Ile | Ala | Ala | Ile | Met | Glu | Leu | Met | Asn | Lys | Leu | Ala | Lys | Ala | Pro |
| | 770 | | | | | 775 | | | | | 780 | | | Gln |
| Asp | Gly | Glu | Gln | Asp | Arg | Ala | Leu | Met | Arg | Glu | Ala | Leu | Leu | Ala |
| 785 | | | | 790 | | | | | | 795 | | | | 800 |
| Val | Arg | Met | Leu | Asn | Pro | Phe | Thr | Pro | His | Val | Ser | Phe | Thr | Leu |
| | | | | 805 | | | | | 810 | | | | | 815 |
| Gln | Glu | Leu | Lys | Gly | Glu | Gly | Asp | Ile | Asp | Asn | Ala | Pro | Trp | Pro |
| | | | 820 | | | | 825 | | | | | | 830 | Val |
| Ala | Asp | Glu | Ser | Ala | Met | Val | Glu | Asn | Thr | Thr | Leu | Val | Val | Gln |
| | | 835 | | | | | 840 | | | | | 845 | | |
| Val | Asn | Gly | Lys | Val | Arg | Gly | Lys | Ile | Thr | Val | Ala | Val | Asp | Ala |
| | 850 | | | | | 855 | | | | | 860 | | | Thr |
| Glu | Glu | Gln | Val | Arg | Glu | Arg | Ala | Gly | Gln | Glu | His | Leu | Val | Ala |
| | | | | 870 | | | | | | 875 | | | | Lys |
| Tyr | Leu | Glu | Gly | Val | Thr | Val | Arg | Lys | Val | Ile | Tyr | Val | Pro | Gly |
| | | | | 885 | | | | | 890 | | | | | 895 |
| Leu | Leu | Asn | Leu | Val | Val | Gly | | | | | | | | |
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<210> 6975

<211> 135

<212> PRT

<213> Enterobacter cloacae

<400> 6975

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| His | Leu | Ser | Arg | Asp | Trp | Arg | Gln | Phe | Arg | Tyr | Thr | Asp | Trp | Pro | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | His | Ser | Cys | Thr | Ile | Ser | Phe | Thr | Gln | Gly | Glu | Asn | Leu | Gln | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ala | Leu | Gln | Asp | Phe | Val | Ile | Asp | Lys | Ile | Asp | Asp | Leu | Lys | Gly |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Gln | Asp | Ile | Ile | Ala | Ile | Asp | Val | Lys | Gly | Lys | Ser | Ser | Ile | Thr | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Met | Ile | Ile | Cys | Thr | Gly | Thr | Ser | Thr | Arg | His | Val | Val | Ser | Ile |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Ala | Asp | His | Val | Val | Gln | Glu | Ser | Arg | Ala | Ala | Gly | Leu | Leu | Pro | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Val | Glu | Gly | Glu | Ala | Thr | Ala | Asp | Trp | Val | Val | Val | Asp | Leu | Gly |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Asp | Val | Ile | Val | His | Val | Met | Gln | Glu | Glu | Ser | Arg | Arg | Leu | Tyr | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Glu | Lys | Leu | Trp | Gly | | | | | | | | | | |
| | 130 | | | | | | 135 | | | | | | | | |

<210> 6976
 <211> 157
 <212> PRT
 <213> Enterobacter cloacae

<400> 6976

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| Cys | Val | Lys | Leu | Gln | Leu | Val | Ala | Val | Gly | Thr | Lys | Met | Pro | Asp | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Gln | Thr | Gly | Phe | Thr | Glu | Tyr | Leu | Arg | Arg | Phe | Pro | Lys | Asp | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Phe | Glu | Leu | Val | Glu | Ile | Pro | Ala | Gly | Lys | Arg | Gly | Lys | Asn | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Ile | Lys | Arg | Ile | Leu | Asp | Lys | Glu | Gly | Glu | Leu | Met | Leu | Ala | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Gly | Lys | Asn | Arg | Ile | Val | Thr | Leu | Asp | Ile | Pro | Gly | Lys | Pro | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Thr | Pro | Gln | Leu | Ala | His | Glu | Leu | Glu | Arg | Trp | Lys | Gln | Asp | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Arg | Asp | Val | Ser | Leu | Leu | Ile | Gly | Gly | Pro | Glu | Gly | Leu | Ser | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | Lys | Ala | Ala | Ala | Glu | Gln | Ser | Trp | Ser | Leu | Ser | Ala | Leu | Thr | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | His | Pro | Leu | Val | Arg | Val | Leu | Val | Ala | Glu | Ser | Leu | Tyr | Arg | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Trp | Ser | Ile | Thr | Thr | Asn | His | Pro | Tyr | His | Arg | Glu | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 6977
 <211> 383
 <212> PRT
 <213> Enterobacter cloacae

<400> 6977

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Pro | Gly | Ser | Arg | Cys | Gly | Gly | Gly | Pro | Ile | Ile | Met | Thr | Asp | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Asn | Lys | Lys | Ser | Leu | Trp | Asp | Lys | Ile | His | Ile | Asp | Pro | Ala | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Ile | Leu | Leu | Ala | Leu | Leu | Val | Tyr | Ser | Ala | Leu | Val | Ile | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ala | Ser | Gly | Gln | Asp | Ile | Gly | Met | Met | Glu | Arg | Lys | Ile | Gly | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Ala | Met | Gly | Leu | Val | Ile | Met | Val | Val | Met | Ala | Gln | Ile | Pro | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Val | Tyr | Glu | Gly | Trp | Ala | Pro | Tyr | Leu | Tyr | Ile | Phe | Cys | Ile | Ile |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Leu | Val | Ala | Val | Asp | Ala | Phe | Gly | Ala | Ile | Ser | Lys | Gly | Ala | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Trp | Leu | Asp | Leu | Gly | Ile | Val | Arg | Phe | Gln | Pro | Ser | Glu | Ile | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Ile | Ala | Val | Pro | Leu | Met | Val | Ala | Arg | Phe | Ile | Asn | Arg | Asp | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Cys | Pro | Pro | Ser | Leu | Lys | Asn | Thr | Ala | Ile | Ala | Leu | Val | Leu | Ile | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Pro | Thr | Leu | Leu | Val | Ala | Ala | Gln | Pro | Asp | Leu | Gly | Thr | Ser | Ile |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Ile | Ala | Leu | Ser | Gly | Leu | Phe | Val | Leu | Phe | Leu | Ser | Gly | Leu | Ser |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Trp | Arg | Leu | Ile | Gly | Ile | Ala | Val | Val | Leu | Val | Ala | Ala | Phe | Ile | Pro |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Ile | Leu | Trp | Phe | Phe | Leu | Met | His | Asp | Tyr | Gln | Arg | Gln | Arg | Val | Met |
| 210 | | | | | | 215 | | | | | 220 | | | | |

Met Leu Leu Asp Pro Glu Thr Asp Pro Leu Gly Ala Gly Tyr His Ile
 225 230 235 240
 Ile Gln Ser Lys Ile Ala Ile Gly Ser Gly Gly Leu Arg Gly Lys Gly
 245 250 255
 Trp Leu His Gly Thr Gln Ser Gln Leu Glu Phe Leu Pro Glu Arg His
 260 265 270
 Thr Asp Phe Ile Phe Ala Val Leu Ala Glu Glu Leu Gly Leu Val Gly
 275 280 285
 Ile Leu Val Leu Leu Ala Leu Tyr Val Leu Leu Ile Met Arg Gly Leu
 290 295 300
 Trp Ile Ala Ala Arg Ala Gln Thr Thr Phe Gly Arg Val Met Ala Gly
 305 310 315 320
 Gly Leu Met Leu Ile Leu Phe Val Tyr Val Phe Val Asn Ile Gly Met
 325 330 335
 Val Ser Gly Ile Leu Pro Val Val Gly Val Pro Leu Pro Leu Val Ser
 340 345 350
 Tyr Gly Gly Ser Ala Leu Ile Val Leu Met Ala Gly Phe Gly Ile Val
 355 360 365
 Met Ser Ile His Thr His Arg Lys Met Leu Ser Lys Ser Val
 370 375 380

<210> 6978

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 6978

Gly Leu Leu Leu Glu Thr Val Thr Tyr Pro Gly Gly Lys Met Met Asn
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 Lys Val Ala Gln Phe Tyr Arg Glu Leu Val Ala Thr Leu Thr Glu Arg
 20 25 30
 Leu Arg Asn Gly Glu Arg Asp Ile Asp Ala Leu Val Glu Gln Ala Arg
 35 40 45
 Ala Arg Val Thr Gln Thr Gly Glu Leu Thr Arg Thr Glu Val Glu Glu
 50 55 60
 Val Thr Arg Ala Val Arg Arg Asp Leu Glu Glu Phe Ala Arg Ser Tyr
 65 70 75 80
 Glu Glu Ser Gln Asp Glu Ile Ala Asp Ser Val Phe Met Arg Val Ile
 85 90 95
 Lys Glu Ser Leu Trp Gln Glu Leu Ala Asp Ile Thr Asp Lys Thr Gln
 100 105 110
 Leu Glu Trp Arg Glu Val Phe Gln Asp Leu Asn His His Gly Val Tyr
 115 120 125
 His Ser Gly Glu Val Val Gly Leu Gly Asn Leu Val Cys Glu Lys Cys
 130 135 140
 His His His Ile Ala Val Tyr Thr Pro Glu Val Leu Ser Leu Cys Pro
 145 150 155 160
 Lys Cys Gly His Asp Gln Phe Gln Arg Arg Pro Phe Glu Pro
 165 170 175

<210> 6979

<211> 148

<212> PRT

<213> Enterobacter cloacae

<400> 6979

Leu Tyr Ala Gln Asn Thr Cys Cys Ser Glu Thr Glu Ala Glu Pro Gly
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 Thr Gly His Ala Phe Ala Val Asp Asp Ile Thr Arg Val Asp Gln Ile


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<210> 6980
<211> 118
<212> PRT
<213> Enterobacter cloacae
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<210> 6981
<211> 281
<212> PRT
<213> Enterobacter cloacae
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| <400> 6981 | | | | | | | | | | | | | | | | |
| Thr | Leu | Ile | Asn | Thr | His | Arg | Asn | His | Ile | Met | Lys | Lys | Thr | Leu | Thr | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Leu | Ile | Ala | Ala | Ala | Thr | Leu | Ser | Ala | Leu | Ser | Phe | Ala | Ser | Trp | Ala | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Asp | Thr | Leu | Thr | Val | Gly | Ala | Ser | Asn | Thr | Pro | His | Ala | Glu | Ile | Leu | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Glu | Gln | Ala | Lys | Pro | Ile | Leu | Ala | Lys | Gln | Gly | Ile | Asp | Leu | Glu | Ile | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Lys | Pro | Phe | Gln | Asp | Tyr | Ile | Leu | Pro | Asn | Thr | Ala | Leu | Ala | Gly | His | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Ile | Asp | Ala | Asn | Tyr | Phe | Gln | His | Ile | Pro | Tyr | Leu | Asn | Ser | Val | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Lys | Asp | His | Ala | Gly | Asp | Lys | Asp | Tyr | Asp | Phe | Val | Ser | Ala | Gly | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ala | Ile | His | Ile | Glu | Pro | Ile | Gly | Ile | Tyr | Ser | Lys | Lys | Tyr | Lys | Ser | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |

Leu Lys Asp Leu Pro Glu Gly Gly Lys Ile Ile Met Arg Asp Ala Val
 130 135 140
 Ser Glu Glu Gly Arg Ile Leu Ser Ile Phe Glu Lys Glu Gly Val Ile
 145 150 155 160
 Lys Leu Lys Pro Gly Ile Asp Lys Val Thr Ala Arg Ile Ser Asp Ile
 165 170 175
 Val Glu Asn Pro Lys Lys Leu Gln Phe Thr Pro Asn Val Glu Ala Ser
 180 185 190
 Leu Leu Pro Gln Met Tyr Asn Asn Asp Glu Gly Ala Ala Val Val Ile
 195 200 205
 Asn Ala Asn Tyr Ala Ile Asp Ala Gly Leu Asp Pro Val His Asp Pro
 210 215 220
 Ile Ala Val Glu Ser Gly Glu Asn Asn Pro Tyr Ala Asn Ile Ile Thr
 225 230 235 240
 Val His Arg Gly Asp Glu Lys Lys Lys Asp Ile Val Ala Leu Val Asn
 245 250 255
 Val Leu His Ser Lys Glu Ile Gln Asp Trp Ile Arg Thr Lys Tyr Lys
 260 265 270
 Gly Ala Val Ile Pro Val Asn Asn
 275 280

<210> 6982

<211> 76

<212> PRT

<213> Enterobacter cloacae

<400> 6982

Gly Asn Gly Val Met Ala Met Gly Asn Val Thr Lys Asp Glu Ala Leu
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 Tyr Gln Glu Met Cys Arg Val Val Gly Lys Val Val Leu Glu Met Arg
 20 25 30
 Asp Leu Gly Gln Glu Pro Lys His Ile Val Ile Ala Gly Val Leu Arg
 35 40 45
 Thr Ala Leu Ala Asn Gln Arg Val Lys Arg Ser Glu Leu Thr Thr Lys
 50 55 60
 Ala Met Glu Thr Val Val Lys Ala Leu Ala Gly
 65 70 75

<210> 6983

<211> 344

<212> PRT

<213> Enterobacter cloacae

<400> 6983

Arg Ile Arg Met Ile Val Leu Ser Asn Ile Ser Lys Val Phe Asp Asn
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 Gly Lys Leu Ala Leu Thr Ala Val Asp Asn Val Asn Leu Thr Ile Glu
 20 25 30
 Gln Gly Gln Ile Tyr Gly Ile Ile Gly Tyr Ser Gly Ala Gly Lys Ser
 35 40 45
 Thr Leu Ile Arg Leu Leu Asn Gly Leu Glu Lys Pro Ser Ala Gly Ser
 50 55 60
 Val Thr Ile Asn Gly Gln Asp Ile Ser Ala Ala Lys Gly Glu Ala Leu
 65 70 75 80
 Arg Gln Ala Arg Leu Lys Ile Ser Met Val Phe Gln His Phe Asn Leu
 85 90 95
 Leu Trp Ser Arg Thr Val Lys Glu Asn Ile Ala Phe Ser Met Gln Ile
 100 105 110
 Ala Gly Val Pro Lys Ala Gln Ile Gln Ala Arg Val Ala Glu Leu Val
 115 120 125
 Glu Leu Val Gly Leu Lys Gly Arg Glu Asn Ala Tyr Pro Ser Gln Leu

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Ser Gly Gly Gln Lys Gln Arg Val Gly Ile Ala Arg Ala Leu Ala Asn | | |
| 145 | 150 | 155 |
| His Pro Asp Val Leu Leu Cys Asp Glu Ala Thr Ser Ala Leu Asp Pro | | |
| | 165 | 170 |
| Gln Thr Thr Asp Gln Ile Leu Asp Leu Leu Leu Asp Ile Asn Arg Arg | | |
| | 180 | 185 |
| Phe Asn Leu Thr Ile Val Leu Ile Thr His Glu Met His Val Val Arg | | |
| | 195 | 200 |
| Lys Ile Cys Asp Arg Val Ala Val Met Glu Asn Gly Lys Val Val Glu | | |
| | 210 | 215 |
| Glu Gly Asp Val Leu Ser Val Phe Thr His Pro Gln Gln Pro Ile Thr | | |
| 225 | 230 | 235 |
| Arg Gln Phe Val Arg Gln Val Ser Gln Tyr Ala Glu Glu Glu Thr Phe | | |
| | 245 | 250 |
| Asn Thr Glu Leu Ala Asn Asp Leu Glu Gly Thr Val Ile Arg Leu Thr | | |
| | 260 | 265 |
| Phe Thr Gly His Ser Thr His Arg Pro Ile Val Gly Glu Leu Thr Leu | | |
| | 275 | 280 |
| Arg Tyr Gly Leu Pro Phe Asn Ile Leu His Gly Lys Met Thr Gln Thr | | |
| | 290 | 295 |
| Ala His Gly Val Phe Gly Gln Leu Trp Val His Val Val Ala Ser Asp | | |
| 305 | 310 | 315 |
| Glu Gln Leu Asn Asn Ile Leu Ala Asp Leu Lys Gln Ser Asp Ile Glu | | |
| | 325 | 330 |
| Gly Glu Val Ile Lys His Gly | | |
| | 340 | |

<210> 6984

<211> 221

<212> PRT

<213> Enterobacter cloacae

<400> 6984

| | |
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| Gly Asp Ala Leu His Asp Cys Ala Phe Pro Ala Trp Arg Arg Leu Phe | |
| | 20 |
| Leu Gly Ile Ala Leu Gly Leu Ala Leu Phe Leu Thr Ala Arg Gly Gly | |
| | 35 |
| Leu Phe His Asn Arg Thr Val Tyr Ser Val Met Ser Ile Val Val Asn | |
| | 50 |
| Val Phe Arg Ser Ile Pro Phe Ile Ile Leu Ile Val Leu Leu Ile Pro | |
| 65 | 70 |
| Phe Thr Lys Thr Val Val Gly Thr Ile Leu Gly Ala Asn Ala Ala Leu | |
| | 85 |
| Pro Ala Leu Ile Val Gly Ala Ala Pro Phe Tyr Ala Arg Leu Val Glu | |
| | 100 |
| Ile Ala Leu Arg Glu Val Asp Lys Gly Val Ile Glu Ala Thr Arg Ser | |
| | 115 |
| Met Gly Ala Arg Leu Ser Thr Leu Val Phe Arg Val Leu Leu Pro Glu | |
| | 130 |
| Ser Ser Pro Ala Leu Val Ser Gly Met Thr Val Thr Leu Ile Ala Leu | |
| 145 | 150 |
| Val Ser Tyr Ser Ala Met Ala Gly Val Ile Gly Ala Gly Gly Leu Gly | |
| | 165 |
| Asn Leu Ala Tyr Leu Glu Gly Phe Gln Arg Asn His Gly Asp Val Thr | |
| | 180 |
| Leu Val Ala Thr Val Thr Ile Leu Ile Ile Val Phe Ile Ile Gln Phe | |
| | 195 |
| Cys Gly Asp Ala Ile Thr Ser Leu Leu Asp Lys Arg | |
| | 200 |
| | 205 |

210

215

220

<210> 6985

<211> 288

<212> PRT

<213> Enterobacter cloacae

<400> 6985

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Lys | Thr | Lys | Thr | Thr | Gly | Trp | Arg | Met | Thr | Met | Ala | Ala | Lys |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Met | Lys | Gly | Phe | Lys | Lys | Arg | Ala | Gln | Val | Leu | Gly | Leu | Val | Ala | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Leu | Val | Ser | Ala | Gln | Ala | Gln | Ala | Asp | Arg | Leu | Ala | Asp | Ile | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ala | Gly | Val | Val | Lys | Val | Ala | Thr | Phe | Asp | Ala | Asn | Pro | Pro | Phe |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | Ser | Ile | Asp | Ala | Lys | Thr | His | Glu | Ile | Val | Gly | Tyr | Asp | Val | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Phe | Ala | Lys | Ala | Leu | Ala | Lys | Ser | Leu | Gly | Val | Lys | Leu | Glu | Leu | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Thr | Asn | Pro | Ala | Asn | Arg | Ile | Pro | Leu | Leu | Gln | Ser | Gly | Lys | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Leu | Ile | Val | Ala | Asp | Ile | Thr | Ile | Thr | Pro | Glu | Arg | Ala | Gln | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Asp | Phe | Ser | Thr | Pro | Tyr | Phe | Val | Thr | Gly | Gln | Gln | Phe | Leu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Ala | Lys | Ser | Pro | Asp | Lys | Leu | Asp | Asp | Tyr | Ser | Arg | Ala | Arg | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ala | Val | Lys | Gly | Thr | Thr | Gly | Glu | Gln | Ala | Leu | His | Gln | Arg | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Gln | Ser | Arg | Val | Leu | Ser | Tyr | Asp | Asp | Ile | Pro | Leu | Ala | Leu | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Arg | Asn | Gly | Asn | Val | Gln | Ala | Ile | Thr | Gln | Asp | Ser | Thr | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Ala | Gly | Leu | Leu | Ala | Gln | Ala | Pro | Asp | Lys | Ala | Asp | Phe | Lys | Ile |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Pro | Asp | Leu | Leu | Ser | Lys | Glu | Glu | Ile | Gly | Val | Gly | Val | Lys | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Gly | Glu | Thr | Ala | Leu | Leu | Lys | Ala | Val | Asn | Asp | Glu | Leu | Val | Asn | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Lys | Asn | Gly | Gln | Ala | Ala | Lys | Ile | Tyr | Asp | Val | Trp | Phe | Gly | Pro |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Gly | Ser | Pro | Ala | Pro | Gln | Pro | Arg | Asn | Phe | Lys | Ile | Glu | Ala | Arg | |
| | | 275 | | | | | 280 | | | | | | 285 | | |

<210> 6986

<211> 303

<212> PRT

<213> Enterobacter cloacae

<400> 6986

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Val | Arg | Pro | Gly | Asn | Cys | Arg | Ser | Asn | Arg | Leu | Tyr | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Thr | His | Ser | Gly | Asn | Arg | Val | Pro | Gly | Ala | Ile | Phe | Gln | Pro | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ala | Ser | Ala | Cys | Glu | Ala | Val | Pro | Ala | Lys | Ser | Ala | Gly | Ser | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Gly | Ala | Thr | Val | Met | Pro | Ala | Leu | Asp | Trp | Gln | Gly | Val | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Gly | Gln | Pro | Leu | His | Trp | Ile | Leu | Ser | Gly | Phe | Leu | Thr | Thr | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Trp Val Thr Leu Ala Gly Ile Met Leu Ala Ser Leu Leu Ala Leu Phe
 85 90 95
 Phe Met Leu Leu Arg Leu Ser Gly Gly Arg Leu Gly Thr Ser Phe Val
 100 105 110
 Ser Gly Trp Val Ser Leu Phe Arg Asn Thr Pro Leu Leu Val Gln Leu
 115 120 125
 Leu Phe Trp Tyr Phe Ala Ala Trp Asn Gly Leu Pro Gln Glu Leu Arg
 130 135 140
 Asp Ala Val Asn Ala Asp His Ser Trp Ser Ile Leu Pro Gly Asp Val
 145 150 155 160
 Trp Trp Phe Thr Pro Glu Phe Leu Cys Ser Ala Trp Gly Leu Gly Val
 165 170 175
 Phe Thr Ser Ala Phe Leu Ile Glu Glu Val Glu Ser Gly Leu Arg Ser
 180 185 190
 Val Pro Ala Gly Gln Arg Glu Ala Ala Leu Ala Gln Gly Phe Ser Ser
 195 200 205
 Trp Arg Leu Phe Arg Tyr Ile Leu Leu Pro Gln Gly Leu Ala Asn Ala
 210 215 220
 Trp Gln Pro Val Val Gly Gln Tyr Leu Asn Leu Met Lys Leu Ser Ser
 225 230 235 240
 Leu Ala Ser Gly Ile Gly Phe Ala Glu Leu Thr Tyr Gln Val Arg Gln
 245 250 255
 Ile Glu Ser Tyr Asn Ala His Ala Leu Glu Ala Phe Thr Val Gly Thr
 260 265 270
 Val Leu Tyr Leu Leu Thr Gly Met Val Thr Gly Ser Val Leu Val Arg
 275 280 285
 Leu Gly Pro His Ser Gly Arg Lys Asn His Asp Pro Arg Ile
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<210> 6987

<211> 276

<212> PRT

<213> Enterobacter cloacae

<400> 6987

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 Val Asp Lys Arg Tyr Gly Asp His Pro Val Leu Thr Asp Ile Asn Leu
 35 40 45
 Thr Ile Met Pro Gly Glu Val Val Ala Ile Leu Gly Pro Ser Gly Ser
 50 55 60
 Gly Lys Ser Thr Leu Ile Arg Leu Ile Asn Gln Leu Glu Ser Leu Ser
 65 70 75 80
 Gly Gly Glu Ile Leu Val Asp His Lys Pro Thr Gly Gln Leu Ser Gly
 85 90 95
 Ser Arg Leu Arg Gln Leu Arg Ser Arg Val Gly Phe Val Phe Gln Gln
 100 105 110
 Phe Asn Leu Tyr Ala His Leu Thr Ala Ser Gln Asn Ile Thr Leu Ala
 115 120 125
 Leu Glu His Val His Gly Trp Lys Pro Met Pro Ala Gln Glu Arg Ala
 130 135 140
 Leu Ala Leu Leu Glu Lys Val Gly Met Leu Glu Lys Ala His Arg Tyr
 145 150 155 160
 Pro Ala Glu Leu Ser Gly Gly Gln Gln Gln Arg Val Ala Ile Ala Arg
 165 170 175
 Ala Leu Ala Ser Pro Gln Ile Ile Leu Phe Asp Glu Pro Thr Ser
 180 185 190
 Ala Leu Asp Pro Glu Met Ile Gly Glu Val Leu Leu Val Met Lys Ala
 195 200 205

Leu Ala His Ser Gly Ile Thr Met Ile Val Val Thr His Glu Met Gln
 210 215 220
 Phe Ala Arg Glu Ile Ala Asp Arg Ile Val Phe Ile Asp Gly Gly His
 225 230 235 240
 Ile Leu Glu Thr Ala Ser Pro Ala Gln Phe Phe Asn Gln Pro Ser His
 245 250 255
 Pro Arg Ala Arg Arg Phe Leu Gln Lys Val Leu Asp Pro Leu Arg Gln
 260 265 270
 Glu Gln Leu
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<210> 6988

<211> 245

<212> PRT

<213> Enterobacter cloacae

<400> 6988

Arg Gly Ala Cys Trp Cys Ala Ser Ala Pro Ile Gln Gly Gly Lys Ile
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 Trp Gly Arg Ala Ile Ala Gly Glu Pro Gly Gly Val Leu Leu Ser Leu
 35 40 45
 Leu Met Ala Ala Gly Ala Ala Ala Leu Ala Leu Pro Gly Gly Ile Val
 50 55 60
 Leu Ala Cys Val Ala Trp Arg Tyr Pro Gly Val Val Arg Ser Ala Leu
 65 70 75 80
 Phe Ala Trp Ala Glu Leu Ile Arg Gly Ile Pro Leu Ile Phe Val Ile
 85 90 95
 Phe Trp Met Trp Tyr Leu Leu Pro Leu Ile Thr Gly Arg Asp Leu Pro
 100 105 110
 Gly Ala Thr Thr Val Thr Leu Ala Leu Ala Trp Phe Thr Ala Ala Ala
 115 120 125
 Val Met His Ser Val Leu Ala Gly Leu Arg Ala Leu Pro Ser Gly Gln
 130 135 140
 Asn Glu Ala Ala Leu Ser Gln Gly Phe Ser Thr Gln Gln Thr Leu Trp
 145 150 155 160
 Arg Val Leu Leu Pro Gln Ala Leu Arg Asn Ile Leu Pro Ser Leu Val
 165 170 175
 Gly Ile Phe Ile Ser Leu Leu Lys Asp Thr Ser Leu Ala Phe Ile Val
 180 185 190
 Asn Val Pro Glu Leu Thr Thr Val Ala Gly Gln Val Asn Asn Arg Val
 195 200 205
 Gln Ile Tyr Pro Ala Ala Ile Phe Ile Phe Thr Gly Val Ile Tyr Tyr
 210 215 220
 Leu Leu Cys Cys Ser Leu Glu Leu Leu Ala Lys Arg Trp Arg Val Ser
 225 230 235 240
 Arg Pro Ala Leu
 245

<210> 6989

<211> 292

<212> PRT

<213> Enterobacter cloacae

<400> 6989

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 20 25 30
 Gly Pro Lys Thr Glu Ser Glu Glu Met Leu Ser Lys Met Leu Asp Ala

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 35 | | | | 40 | | | 45 | | | | | | |
| Gly | Met | Asn | Val | Met | Arg | Leu | Asn | Phe | Ser | His | Gly | Asp | Tyr | Ala | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Gly | Gln | Arg | Ile | Gln | Asn | Leu | Arg | Asn | Val | Met | Ser | Lys | Thr | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Lys | Ala | Ala | Ile | Leu | Leu | Asp | Thr | Lys | Gly | Pro | Glu | Ile | Arg | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Lys | Leu | Glu | Gly | Gly | Asn | Asp | Val | Ser | Leu | Lys | Ala | Gly | Gln | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Thr | Phe | Thr | Thr | Asp | Lys | Ser | Val | Val | Gly | Asn | Asn | Glu | Ile | Val |
| | | 115 | | | | | | 120 | | | | | 125 | | |
| Ala | Val | Thr | Tyr | Glu | Gly | Phe | Thr | Ser | Asp | Leu | Ser | Val | Gly | Asn | Thr |
| | 130 | | | | | | 135 | | | | | 140 | | | |
| Val | Leu | Val | Asp | Asp | Gly | Leu | Ile | Gly | Met | Glu | Val | Thr | Ala | Ile | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Asn | Lys | Val | Ile | Cys | Lys | Val | Leu | Asn | Asn | Gly | Asp | Leu | Gly | Glu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Asn | Lys | Gly | Val | Asn | Leu | Pro | Gly | Val | Ser | Ile | Ala | Leu | Pro | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Glu | Lys | Asp | Lys | Gln | Asp | Leu | Ile | Phe | Gly | Cys | Glu | Gln | Gly | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Phe | Val | Ala | Ala | Ser | Phe | Ile | Arg | Lys | Arg | Ser | Asp | Val | Val | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Arg | Glu | His | Leu | Lys | Ala | His | Gly | Gly | Glu | Asn | Ile | Gln | Ile | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Lys | Ile | Glu | Asn | Gln | Glu | Gly | Leu | Asn | Asn | Phe | Asp | Glu | Ile | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Ala | Ser | Asp | Gly | Ile | Met | Val | Ala | Arg | Gly | Asp | Leu | Gly | Val | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Pro | Gly | Cys | Arg | Ser | Val | Phe | Thr | Thr | Gly | Ala | Gly | Thr | Asn | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Lys | Arg | Gly | | | | | | | | | | | | |
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<210> 6990

<211> 534

<212> PRT

<213> Enterobacter cloacae

<400> 6990

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Ala | Ile | Cys | Ile | Ser | Gly | His | Thr | His | Pro | Ala | Lys | Ser | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Phe | Ala | Ala | Leu | Tyr | Ala | Asp | Leu | Ala | Ile | Leu | Thr | Ser | Gly | Gln |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Tyr | Val | Leu | Leu | Ser | Phe | His | Leu | Lys | Ile | Gln | Gly | Leu | Phe | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Val | Leu | Lys | Pro | Gly | Glu | Thr | Phe | Phe | Ile | Glu | Lys | Ile | Ser | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Tyr | His | Pro | Val | Ile | Thr | Ser | Ser | Gln | Asp | Met | Thr | Met | Thr | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Tyr | His | Ser | Val | Thr | Glu | Leu | Ile | Gly | Arg | Thr | Pro | Leu | Ile | Gln | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| His | Lys | Leu | Asp | Thr | Gly | Pro | Cys | Ser | Leu | Phe | Leu | Lys | Leu | Glu | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Asn | Pro | Gly | Gly | Ser | Ile | Lys | Asp | Arg | Val | Ala | Leu | Ser | Met | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Glu | Ala | Glu | Arg | Thr | Gly | Gln | Leu | Arg | Pro | Gly | Gly | Thr | Ile | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Ala | Thr | Ala | Gly | Asn | Thr | Gly | Leu | Gly | Leu | Ala | Leu | Ile | Ala | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Lys | Gly | Tyr | Ser | Leu | Ile | Leu | Val | Val | Pro | Asp | Lys | Met | Ser | Arg |


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<210> 6991
<211> 386
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Gln | Lys | Met | Lys | Asn | Leu | Ala | Thr | Leu | Ser | Val | His | Ser | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Tyr | His | Asp | Pro | His | Gly | Ala | Val | Met | Pro | Pro | Ile | Tyr | Ala | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Thr | Phe | Ala | Gln | Pro | Ala | Pro | Gly | Glu | His | Thr | Gly | Tyr | Glu | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Ser | Gly | Asn | Pro | Thr | Arg | His | Ala | Leu | Glu | Thr | Ala | Ile | Ala |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Glu Leu Glu Gly Gly Thr Arg Gly Tyr Ala Phe Ala Ser Gly Leu Ala | | |
| 65 | 70 | 75 |
| Ala Ile Ser Thr Val Leu Glu Leu Leu Asp Gln Asp Ser His Ile Val | | 80 |
| | 85 | 90 |
| Ala Ile Asp Asp Val Tyr Gly Gly Thr Tyr Arg Leu Ile Glu Asn Val | | 95 |
| | 100 | 105 |
| Arg Lys Arg Ser Thr Gly Leu Gln Val Ser Trp Val Lys Pro Asp Asp | | 110 |
| | 115 | 120 |
| Val Ala Gly Leu Glu Ala Ala Ile Arg Pro Asp Thr Arg Met Ile Trp | | 125 |
| | 130 | 135 |
| Val Glu Thr Pro Thr Asn Pro Leu Leu Lys Leu Ala Asp Leu Glu Ala | | 140 |
| 145 | 150 | 155 |
| Ile Ala Asp Ile Ala Arg Arg His Asn Ala Ile Ser Val Ala Asp Asn | | 160 |
| | 165 | 170 |
| Thr Phe Ala Ser Pro Val Ile His Arg Pro Leu Glu Ala Gly Phe Asp | | 175 |
| | 180 | 185 |
| Ile Val Val His Ser Ala Thr Lys Tyr Leu Asn Gly His Ser Asp Val | | 190 |
| | 195 | 200 |
| Val Ala Gly Leu Ala Val Val Gly Ala Asn Lys Asp Leu Ala Glu Arg | | 205 |
| | 210 | 215 |
| Leu Gly Tyr Leu Gln Asn Ala Ile Gly Gly Val Leu Asp Pro Phe Ser | | 220 |
| 225 | 230 | 235 |
| Ser Phe Leu Thr Leu Arg Gly Ile Arg Thr Leu Ser Leu Arg Val Glu | | 240 |
| | 245 | 250 |
| Lys His Ser Ala Asn Ala Leu Ala Ile Ala Gln Trp Leu Glu Gln His | | 255 |
| | 260 | 265 |
| Pro Gln Val Asp Ser Val Phe Tyr Pro Gly Leu Ala Ser His Pro Gln | | 270 |
| | 275 | 280 |
| Tyr Ala Leu Ala Arg Arg Gln Met Ala Leu Pro Gly Gly Met Ile Ser | | 285 |
| | 290 | 295 |
| Val Val Ile Lys Gly Asp Ala Gln Arg Ala Thr Glu Val Ile Arg His | | 300 |
| 305 | 310 | 315 |
| Leu Thr Leu Phe Thr Leu Ala Glu Ser Leu Gly Gly Val Glu Ser Leu | | 320 |
| | 325 | 330 |
| Val Ser Gln Pro Tyr Ser Met Thr His Ala Ser Ile Pro Leu Ala Gln | | 335 |
| | 340 | 345 |
| Arg Leu Ala Asn Gly Ile Val Pro Gln Leu Ile Arg Leu Ser Val Gly | | 350 |
| | 355 | 360 |
| Ile Glu Asp Ala Lys Asp Leu Ile Ala Asp Leu Lys Gln Ala Leu Lys | | 365 |
| 370 | 375 | 380 |
| Lys | | |
| 385 | | |

<210> 6992

<211> 285

<212> PRT

<213> Enterobacter cloacae

<400> 6992

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| Gly Ala Ser Leu Lys Gln Leu Gly Pro Gln Gly Met Gln Ile Ser Asp |
| 20 |
| Asp Val Lys Gly Thr Ser Pro Asp Arg Leu Thr Gly Thr Asp Val Met |
| 35 |
| Ala Ala Ile Gly Thr Thr Ser Ser Arg Ala Arg Phe Gly Leu Ala Ala |
| 50 |
| Phe Phe Gly Lys Ala Gly Ile Ser Lys Thr Asp Glu Gln Leu Ala Val |
| 65 |
| Gln Ala Leu Ala Arg Tyr Ala Met Asp Val Ala Pro Lys Asn Val Arg |
| 70 |
| 75 |
| 80 |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Lys | Ala | Ala | Gly | Gly | Gln | Phe | Gly | Trp | Cys | Met | Gln | Met | Leu | Ala | Gln | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Phe | Ala | Phe | Ala | Asp | Tyr | Ser | Arg | Ser | Ala | Ala | Thr | Ser | Ala | Thr | Cys | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| His | Ser | Cys | Cys | Gly | Thr | Gly | Arg | Thr | Thr | Arg | Glu | Gln | Ile | Thr | Arg | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Lys | Val | Ser | Tyr | Pro | Trp | Gly | Lys | Ala | Pro | Tyr | Trp | Ala | Cys | Arg | Ser | | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | | |
| Arg | Ala | Val | Arg | Pro | Ser | Asp | Trp | Glu | Gln | Trp | Thr | Glu | Val | Thr | Glu | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | |
| Val | Val | Pro | Ala | Val | Cys | Asp | Val | Cys | Glu | Gly | Lys | Gly | Thr | Ile | Ser | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ala | Arg | Cys | Arg | Cys | Gly | Gly | Lys | Gly | Glu | Val | Leu | Asp | Arg | Lys | Ala | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Thr | Lys | Glu | Arg | Gly | Ala | Pro | Val | Phe | Lys | Thr | Cys | Glu | Arg | Cys | Ser | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Gly | Asn | Gly | Phe | Ser | Ala | Ile | Ser | Ser | Ala | Thr | Val | His | Arg | Ala | Ile | | |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 | | |
| Leu | Lys | Arg | Leu | Pro | Asp | Leu | His | Gln | Ser | Ser | Trp | Ser | Arg | Asn | Trp | | |
| | | | | 245 | | | | 250 | | | | | | 255 | | | |
| Lys | Pro | Phe | Tyr | Glu | Met | Leu | Val | Asp | Thr | Leu | Arg | Gln | Gly | Glu | Arg | | |
| | | | 260 | | | | | 265 | | | | 270 | | | | | |
| His | Ala | Ala | Val | Glu | Phe | Glu | Lys | Ala | Thr | Thr | Tyr | | | | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |

<210> 6993

<211> 121

<212> PRT

<213> Enterobacter cloacae

<400> 6993

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| Val | Leu | Met | Pro | Ala | Ala | Ile | Pro | Arg | Ala | Cys | Arg | Lys | Arg | Gly | Cys | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Ser | Gly | Thr | Thr | Thr | Asp | Arg | Ser | Gly | Tyr | Cys | Glu | His | His | Arg | Asn | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Glu | Gly | Trp | Gln | Gln | His | Gln | Arg | Gly | Gln | Ser | Arg | His | Gln | Arg | Gly | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Tyr | Gly | Ser | Lys | Trp | Asp | Arg | Leu | Arg | Gln | Ile | Val | Leu | Asp | Arg | Asp | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Lys | His | Leu | Cys | Gln | Glu | Cys | Leu | Arg | Asn | Gly | Arg | Tyr | Thr | Pro | Ala | | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | | | |
| Glu | Thr | Val | Asp | His | Ile | Lys | Pro | Lys | Ala | His | Gly | Gly | Thr | Asp | Asp | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | |
| Leu | Ser | Asn | Leu | Glu | Ser | Ile | Cys | Arg | Gly | Cys | His | Lys | Ala | Lys | Thr | | |
| | | 100 | | | | | 105 | | | | | | 110 | | | | |
| Ala | Arg | Glu | Arg | Leu | Asn | Arg | Asn | | | | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | | | |

<210> 6994

<211> 590

<212> PRT

<213> Enterobacter cloacae

<400> 6994

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| Pro | Ala | Gly | Arg | Val | Tyr | Glu | Ser | Glu | Gly | Leu | Met | Ala | Lys | Val | Ala | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Glu | Gly | Ile | Arg | Tyr | Ala | Glu | Arg | Val | Val | Ala | Gly | Glu | Ile | Ile | Ala | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Cys | Glu | Tyr | Val | Arg | Leu | Ala | Cys | Gln | Arg | Phe | Leu | Asp | Asp | Leu | Ala | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gly | Glu | Glu | Arg | Gly | Ile | Phe | Phe | Ser | Glu | Pro | Arg | Ala | Gln | His |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ile | Leu | Asn | Phe | Tyr | Asn | Phe | Val | Pro | His | Val | Lys | Gly | Ala | Leu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Gln | Pro | Ile | Glu | Leu | Met | Asp | Trp | His | Val | Phe | Ile | Leu | Ile | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Phe | Gly | Phe | Val | Ile | Pro | Leu | Val | Asn | Glu | Glu | Thr | Gly | Glu | Thr |
| | | | | 100 | | | | 105 | | | | | 110 | | |
| Val | Leu | Arg | Asn | Asp | Gly | Ser | Gly | Arg | Pro | Val | Met | Val | Arg | Arg | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Thr | Ala | Asp | Val | Glu | Val | Ala | Arg | Lys | Asn | Ala | Lys | Ser | Thr | Leu |
| | | 130 | | | | | 135 | | | | 140 | | | | |
| Cys | Ser | Gly | Val | Gly | Leu | Tyr | Met | Ala | Gly | Ala | Asp | Gly | Glu | Gly | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Glu | Val | Tyr | Ser | Ala | Ala | Thr | Thr | Arg | Asp | Gln | Ala | Arg | Ile | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Glu | Asp | Ala | Lys | Asn | Met | Val | Lys | Lys | Ala | Lys | Ala | Thr | Leu | Gly |
| | | | | 180 | | | | 185 | | | | | | 190 | |
| Arg | Ile | Phe | Glu | Phe | Asn | Lys | Leu | Ala | Ile | Tyr | Gln | Glu | Gln | Ala | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Lys | Phe | Glu | Pro | Leu | Ser | Ser | Asp | Ala | Asn | Asn | Leu | Asp | Gly | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Asn | Ile | His | Cys | Ala | Ile | Val | Asp | Glu | Leu | His | Ala | His | Lys | Thr | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Val | Trp | Asp | Val | Leu | Glu | Thr | Ala | Thr | Gly | Ala | Arg | Leu | Gln | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Leu | Phe | Gly | Ile | Thr | Thr | Ala | Gly | Phe | Asn | Lys | Glu | Gly | Ile | Cys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Tyr | Glu | Leu | Arg | Asp | Tyr | Ala | Ile | Lys | Val | Leu | Arg | Gly | Leu | Val | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Asp | Thr | Phe | Phe | Ala | Ile | Ile | Tyr | Thr | Leu | Asp | Glu | Gly | Asp | Asp |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Pro | Phe | Asp | Glu | Lys | Val | Trp | Gln | Lys | Ala | Asn | Pro | Gly | Leu | Gly | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Cys | Lys | Arg | Trp | Asp | Asp | Leu | Arg | Arg | Leu | Ala | Lys | Lys | Ala | Lys | Glu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gln | Val | Ser | Ala | Arg | Ile | Asn | Phe | Phe | Thr | Lys | His | Met | Asn | Ile | Trp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Val | Thr | Ala | Glu | Ser | Ala | Trp | Met | Asp | Met | Met | Lys | Trp | Glu | Lys | Cys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Glu | Phe | Ile | Ala | Pro | Gln | His | Glu | Leu | Lys | Thr | Tyr | Pro | Ser | Trp | Val |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Gly | Val | Asp | Leu | Ser | Asn | Lys | Ile | Asp | Ile | Cys | Ala | Ala | Ala | Lys | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Trp | Arg | Ala | Pro | Asp | Gly | His | Val | His | Ala | Asp | Phe | Lys | Phe | Trp | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Pro | Glu | Gly | Arg | Leu | Glu | Lys | Cys | Ser | Arg | Gln | Met | Ala | Glu | Leu | Tyr |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Arg | Lys | Trp | Ala | Gly | Met | Asp | Lys | Leu | Ile | Leu | Thr | Asp | Gly | Asp | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ile | Asp | His | Ala | Gln | Ile | Lys | Glu | Glu | Leu | Gln | Leu | Trp | Val | Ala | Gly |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Glu | Ser | Leu | Lys | Glu | Ile | Gly | Phe | Asp | Pro | Trp | Ser | Ala | Thr | Gln | Phe |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ser | Leu | Ala | Leu | Ala | Glu | Glu | Gly | Leu | Pro | Leu | Val | Glu | Val | Pro | Gln |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Thr | Val | Arg | Asn | Phe | Ser | Glu | Ala | Met | Lys | Glu | Val | Glu | Ala | Leu | Val |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Tyr | Gly | Gly | Arg | Phe | His | His | Ser | Asp | His | Pro | Val | Met | Asn | Trp | Met |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Met | Ser | Asn | Val | Thr | Val | Lys | Pro | Asp | Arg | Asn | Glu | Asn | Ile | Phe | Pro |

| | | | | |
|---|--|-----|--|-----|
| 530 | | 535 | | 540 |
| Asn Lys Ser Thr Pro Glu Ala Lys Ile Asp Gly Pro Ala Ala Leu Phe | | | | |
| 545 | | 550 | | 555 |
| Thr Ala Met Ser Arg Val Leu Val Asn Gly Gly Asn Asp Gln Gln Asp | | | | |
| | | 565 | | 570 |
| Leu Ser Gly Phe Phe Asn Asn Pro Ile Met Val Gly Phe | | | | |
| | | 580 | | 585 |
| | | | | 590 |

<210> 6995

<211> 292

<212> PRT

<213> Enterobacter cloacae

<400> 6995

| | |
|---|-----|
| Asn Arg Pro Leu Arg Ser Thr Phe Leu Met Ser Lys Lys Gln Leu Pro | |
| 1 | 5 |
| Val Ala Pro Ala Gly Arg Pro Cys Ala Arg Val Thr Cys Glu Thr Leu | |
| | 20 |
| Pro Ser Ala Leu Asp Arg Trp Asp Gly Gly Ile Lys Ala Ala Ala Thr | |
| | 35 |
| Asp Asp Asn Ser Ile Ser Val Phe Asp Val Ile Gly Gln Asp Tyr Trp | |
| | 50 |
| Gly Glu Gly Val Thr Ala Lys Arg Ile Ala Gly Ala Leu Arg Ala Met | |
| 65 | 70 |
| Asn Gly Ala Asp Val Thr Val Asn Ile Asn Ser Pro Gly Gly Asp Met | |
| | 85 |
| Phe Glu Gly Leu Ala Ile Tyr Asn Leu Leu Arg Glu Tyr Glu Gly Arg | |
| | 100 |
| Val Thr Val Lys Val Leu Gly Ile Ala Ala Ser Ala Ala Ser Val Ile | |
| | 115 |
| Ala Met Ala Gly Asp Asp Ile Gln Ile Gly Arg Gly Ala Phe Leu Met | |
| | 130 |
| Ile His Asn Cys Trp Val Tyr Ala Met Gly Asn Arg His Asp Phe Ala | |
| 145 | 150 |
| Glu Leu Ser Gln Ser Leu Glu Pro Phe Asp Asn Ala Met Ala Asp Ile | |
| | 165 |
| Tyr Ala Ala Arg Ser Gly Leu Asp Met Ala Ala Val Gln Lys Leu Met | |
| | 180 |
| Asp Ala Glu Ser Tyr Ile Gly Gly Ser Asp Ala Val Ala Lys Gly Leu | |
| | 195 |
| Ala Asp Ser Leu Leu Ser Ala Asp Ala Val Ser Asp Gly Asp Glu Ser | |
| | 210 |
| Pro Ala Ala Ala Leu Arg Lys Leu Asp Ala Leu Leu Ala Lys Thr Asn | |
| 225 | 230 |
| Thr Pro Arg Ser Glu Arg Arg Lys Leu Ile Lys Ala Leu Ser Gly Gly | |
| | 245 |
| Met Pro Gly Ala Val Thr Thr Asn Asp Gly Thr Pro Gly Ala Ala Glu | |
| | 260 |
| Asp Ile Lys Pro Glu Thr Leu Asn Ser Leu Glu Asn Ala Leu Ala Ala | |
| | 275 |
| Leu Val Lys | 280 |
| | 285 |
| | 290 |

<210> 6996

<211> 407

<212> PRT

<213> Enterobacter cloacae

<400> 6996

| |
|---|
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| 1 |
| 5 |
| 10 |
| 15 |

Ser Ile Glu Asp Ala Thr Ser Lys Phe Asn Ala Lys Ala Glu Glu Ala
 20 25 30
 Leu Thr Glu Ala Lys Lys Asn Gly Gln Leu Ser Ala Gln Thr Lys Asp
 35 40 45
 Val Val Asp Lys Met Ala Thr Glu Leu Asn Ala Leu Lys Glu Ala Glu
 50 55 60
 Lys Thr Leu Lys Ala Ser Leu Gly Glu Leu Glu Gln His Val Ala Gln
 65 70 75 80
 Met Pro Leu Asn Asn Ala Ala Lys Val Thr Glu Thr Val Gly Gln Val
 85 90 95
 Val Ile Asn Ser Glu Ala Leu Lys Ala Phe Ala Ala Ser Val Glu Gly
 100 105 110
 Asn Lys Arg Val Ser Val Pro Val His Ala Ala Leu Leu Ser Thr Asp
 115 120 125
 Val Ala Asp Gly Val Val Glu Pro Gln Arg Leu Pro Gly Ile Asp Thr
 130 135 140
 Ala Pro Lys Gln Arg Leu Phe Ile Arg Asp Leu Ile Ala Pro Gly Arg
 145 150 155 160
 Thr Ser Ser Pro Ala Ile Phe Trp Val Gln Gln Thr Gly Phe Thr Asn
 165 170 175
 Ala Ala Lys Val Val Ala Glu Gly Thr Ala Lys Pro Tyr Ser Asp Ile
 180 185 190
 Glu Phe Ala Thr Lys Ile Thr Pro Val Thr Thr Ile Ala His Met Phe
 195 200 205
 Lys Ala Ser Lys Gln Ile Leu Asp Asp Phe Ala Gln Leu Gln Ser Thr
 210 215 220
 Val Asp Ala Glu Met Arg Tyr Gly Leu Lys Tyr Val Glu Glu Gln Glu
 225 230 235 240
 Ile Leu Phe Gly Asp Gly Thr Gly Val His Leu His Gly Ile Val Pro
 245 250 255
 Gln Ala Ser Ala Phe Asp Pro Ala Phe Ser Val Glu Ser Gln Asn Gly
 260 265 270
 Ile Asp Asp Leu Arg Leu Ala Met Leu Gln Ala Gln Leu Ala Arg Phe
 275 280 285
 Pro Ala Ser Gly His Val Leu His Phe Ile Asp Trp Ala Lys Ile Glu
 290 295 300
 Leu Thr Lys Asp Ser Leu Gly Arg Tyr Ile Leu Ala Asn Pro Ala Ser
 305 310 315 320
 Leu Thr Gly Pro Thr Leu Trp Gly Leu Pro Val Val Ala Thr Glu Ala
 325 330 335
 Ala Ala Phe Gln Gly Lys Phe Leu Thr Gly Ala Phe Asn Ala Ala Ala
 340 345 350
 Gln Leu Phe Asp Arg Glu Asp Ala Asn Val Val Ile Ser Thr Glu Asn
 355 360 365
 Ala Asp Asp Phe Glu Lys Asn Met Ile Ser Ile Arg Cys Glu Glu Arg
 370 375 380
 Leu Ala Leu Ala Val Lys Arg Pro Glu Ala Phe Val Tyr Gly Ser Phe
 385 390 395 400
 Ser Thr Gly Ala Gly Ser
 405

<210> 6997

<211> 222

<212> PRT

<213> Enterobacter cloacae

<400> 6997

Met Asn Arg Glu Thr Lys Gln Met Leu Thr Leu Ser Lys Phe Gln Gln
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 Ala Thr Gly Thr Ser Ala Glu Leu Ala Gly Lys Trp Phe Pro Val Val
 20 25 30


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<210> 6998
<211> 316
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|----------|-----|-----|-----|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----------|-----------|-----|
| Ile 1 | Met | Gly | Gln | Lys 5 | Ile | Ile | Thr | Leu | Ser 10 | Gly | Ala | Ala | Thr | Asp 15 | Val |
| Leu | Tyr | Ala | Leu | Phe | Phe | Arg | Gly | Ala 25 | Leu | Gln | Ser | Gly | Asp 30 | Leu | Pro |
| Ala | Lys | Ser | Gly | Ala | Ala | Glu | Leu | Arg | Glu | Leu | Gly | Phe | Ala | Glu | Thr |
| Arg | His | Thr | Ala | Thr | Glu | Tyr | Gln | Lys | Glu | Asn | Tyr | Phe | Thr | Phe | Leu |
| Thr | Ala | Glu | Gly | Gln | Ala | Phe | Ala | Ile | Glu | His | Leu | Ala | Asn | Thr | Arg |
| 65 | Phe | Gly | Val | Lys | Gln | Tyr | Cys | Ser | Ala | Ile | Asn | Ile | Gly | Val | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | Leu |
| Asp | Thr | Thr | Asp | Ala | Gln | Lys | Ala | Ile | Asp | Asp | Leu | Asp | Asp | Lys | Ile |
| Arg | Asn | Ser | Asp | Ala | Phe | Lys | Val | Leu | Lys | Asp | Gly | Trp | Ser | Phe | Glu |
| Lys | Asn | Gly | Thr | Leu | Val | Ile | Asn | Asn | Gly | Gln | Val | Phe | Ile | Thr | Asp |
| Ala | Lys | Ile | Ser | Asp | Gly | Val | Leu | Ser | Thr | Asn | Tyr | Asn | Val | Lys | Leu |
| 145 | Asn | Asp | Ala | Asp | Lys | Gly | Lys | Pro | His | Glu | Ala | Gly | Met | Thr | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Glu | Glu | Gly | Lys | Gln | Gln | Ala | Thr | Phe | Lys | Ala | Asp | Arg | Phe | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | His | Glu | Ala | Ala | Gln | Ser | Ala | Ser | Asn | Asn | Glu | Glu | Thr | Ala | Phe |
| | | 195 | | | | | 200 | | | | 205 | | | | |
| Asn | Gly | Gly | Leu | Ala | Phe | Gly | Gly | Phe | Pro | Gly | Ala | Ile | Ser | His | Asp |
| | 210 | | | | | 215 | | | | 220 | | | | | |
| Gly | Ala | Asn | Pro | Ala | Asp | Gly | Asn | Asn | Ala | Thr | Ala | Glu | Pro | Ile | Ser |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Ala | Ser | Ala | Thr | Gly | Thr | Ala | Thr | Lys | Ala | Arg | Leu | Thr | Asp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Met | Gln | Glu | Leu | Val | Leu | Lys | Ala | Val | Arg | Glu | Ser | Asp | Leu | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Thr | Ser | Leu | Gln | Thr | Ala | Ile | Ala | Ala | Lys | Ala | Ala | Ser | Thr | Ala | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Gln | Gln | Ala | Val | Asn | Asp | Ala | Val | Ser | Asn | Ala | Ile | Arg | Asn | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Lys | Pro | Gly | Gly | Leu | Leu | Tyr | Gly | Lys | Cys | | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | |

<210> 6999

<211> 162

<212> PRT

<213> Enterobacter cloacae

<400> 6999

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Ser | Ile | Met | Ser | Gly | Pro | Pro | Lys | Thr | Pro | Thr | His | Leu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Val | Arg | Gly | Asn | Pro | Ser | Lys | Arg | Pro | Ile | Asn | Glu | Asn | Glu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Pro | Pro | Ser | Gly | Val | Pro | Pro | Thr | Pro | Lys | His | Phe | Asp | Lys | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Lys | Tyr | Trp | Phe | Lys | Arg | Met | Ala | Asp | Glu | Leu | Asp | Ala | Ile | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Met | Ser | Gln | Leu | Asp | Ala | Arg | Ala | Leu | Glu | Leu | Leu | Val | Glu | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Tyr | Thr | Glu | Tyr | Arg | His | His | Cys | Asp | Thr | Leu | Glu | Val | Glu | Gly | Tyr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Thr | Tyr | Arg | Thr | Glu | Thr | Gln | Asn | Gly | Asp | Val | Leu | Ile | Lys | Ala | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Ala | Ala | Ile | Met | Lys | Ala | Asp | Ala | Trp | Lys | Arg | Leu | Arg | Ala | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Gly | Glu | Phe | Gly | Met | Thr | Pro | Ala | Ser | Arg | Thr | Lys | Val | Asn | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Gly | Pro | Asp | Ala | Val | Asp | Pro | Leu | Ala | Glu | Phe | Met | Lys | Ala | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | | | | | | | | | | | | | | | |

<210> 7000

<211> 442

<212> PRT

<213> Enterobacter cloacae

<400> 7000

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | His | His | Gly | Arg | Phe | Leu | Met | Lys | Lys | Asn | Lys | Arg | Pro | Gly | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Lys | Ser | Ala | Leu | Leu | Asn | Trp | Leu | Gly | Val | Pro | Ile | Ser | Leu | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Gly | Thr | Phe | Trp | Glu | Glu | Trp | Phe | Gly | Thr | Ser | Ser | Ser | Gly | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Val | Thr | Ala | Asp | Lys | Ala | Ile | Gln | Leu | Ser | Ala | Val | Trp | Ala | Cys |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Arg | Leu | Leu | Ser | Glu | Ser | Ile | Ser | Thr | Leu | Pro | Leu | Lys | Ile | Tyr |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Val | Arg | Gln | Pro | Asp | Gly | Ser | Arg | Lys | Ala | Ala | Thr | Asp | His | Pro | Ala |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Tyr | Ser | Ile | Leu | Cys | Arg | Arg | Pro | Asn | Ser | Glu | Met | Thr | Pro | Ser | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Met | Leu | Met | Val | Val | Ala | Ser | Ile | Cys | Leu | Arg | Gly | Asn | Ala | Phe |


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<210> 7001
<211> 157
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ile | Ser | Ile | Phe | Phe | Asn | Ser | Leu | Arg | Val | Cys | Arg | Asp | Leu | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Met | Leu | Asn | Leu | Ile | Leu | Ser | Gln | Leu | Phe | Asn | Glu | Arg | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Met | Ser | Trp | Arg | Val | Ile | Ser | Ser | Val | Ile | Cys | Pro | Asn | Thr | Gly |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ile | Val | Tyr | Ser | Ser | Ile | Leu | Gly | Leu | Lys | Phe | Leu | Lys | Leu | Ile | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Tyr | Glu | Ser | Asp | Val | Tyr | Leu | Tyr | Pro | Gly | Asp | Arg | Ile | Tyr | Pro |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Lys | Asn | Gly | Val | Phe | Ile | Asn | Gly | Val | Phe | Lys | Pro | Ile | Ser | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Asn | Ile | Ser | Pro | Tyr | Asn | Glu | Met | Leu | Trp | Ser | Glu | Ile | Lys | Asn |


```
<210> 7002
<211> 445
<212> PRT
<213> Enterobacter cloacae
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|------------|------------|------------|------------|------------|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Lys 1 | Thr | Cys | Ser | Glu 5 | Ala | Pro | Val | Ser | Val 10 | Arg | Leu | Met | Lys | Lys 15 | Leu |
| Phe | Val | Gln | Phe 20 | Tyr | Leu | Leu | Leu | Phe | Val 25 | Cys | Phe | Leu | Val | Met | Thr |
| Met | Leu | Val 35 | Gly | Leu | Val | Tyr | Lys 40 | Phe | Thr | Ala | Glu | Arg 45 | Ala | Gly | Arg |
| Gln | Ser 50 | Leu | Asp | Asp | Leu | Met 55 | Lys | Ser | Ser | Leu | Tyr 60 | Leu | Met | Arg | Ser |
| Glu 65 | Leu | Arg | Glu | Ile 70 | Pro | His | Asp | Trp | Ala 75 | Arg | Thr | Leu | Lys | Glu 80 | |
| Leu | Asp | Leu | Asn 85 | Leu | Ser | Phe | Asp | Leu | Arg 90 | Ile | Glu | Pro | Met | Lys 95 | Asp |
| Phe | Asp | Leu | Ala 100 | Pro | Pro | Ala | Met | Gln | Arg 105 | Leu | Arg | Asp | Gly | Asp | Ile |
| Val | Ala | Leu 115 | Asp | Glu | Lys | Tyr | Thr 120 | Phe | Ile | Gln | Arg | Ile | Pro | Arg | Ser |
| His | Tyr 130 | Val | Leu | Ala | Val | Gly 135 | Pro | Val | Pro | Tyr | Leu 140 | Tyr | Tyr | Leu | His |
| Gln 145 | Met | Arg | Leu | Leu 150 | Asp | Leu | Ala | Leu | Leu | Gly 155 | Phe | Ile | Ala | Ile | Ser 160 |
| Leu | Ala | Phe | Pro 165 | Val | Phe | Ile | Trp | Met | Arg 170 | Pro | His | Trp | Gln | Asp 175 | Met |
| Leu | Lys | Leu | Glu 180 | Ser | Ala | Ala | Gln | Arg 185 | Phe | Gly | Glu | Gly | His 190 | Leu | Thr |
| Glu | Arg | Ile 195 | His | Phe | Asp | Ser | Gly 200 | Ser | Ser | Phe | Asp | Arg 205 | Leu | Gly | Ile |
| Ala | Phe 210 | Asn | Gln | Met | Ala | Asp 215 | Asn | Ile | Asn | Ala | Leu 220 | Ile | Ala | Ser | Lys |
| Lys 225 | Gln | Leu | Ile | Asp 230 | Gly | Ile | Ala | His | Glu | Leu | Arg 235 | Thr | Pro | Leu | Val 240 |
| Arg | Leu | Arg | Tyr 245 | Arg | Leu | Glu | Met | Ser | Glu 250 | Asn | Leu | Thr | Gly | Ala 255 | Glu |
| Ser | Gln | Ala | Leu 260 | Asn | Arg | Asp | Ile | Gly 265 | Gln | Leu | Glu | Ala | Leu | Ile | Glu |
| Glu | Leu | Leu 275 | Thr | Tyr | Ala | Arg | Leu 280 | Asp | Arg | Pro | Gln | Thr 285 | Glu | Leu | His |
| Leu | Ser 290 | Thr | Pro | Asp | Leu | Pro 295 | Val | Trp | Leu | Gln | Thr 300 | His | Ile | Asn | Asp |
| Val 305 | Gln | Ser | Val | Asn 310 | Pro | Gln | Arg | Lys | Leu | Leu 315 | Thr | Ala | Ile | Thr | Pro 320 |
| Gly | Ala | Tyr | Gly 325 | Ala | Leu | Asp | Met | Arg | Leu 330 | Met | Glu | Arg | Val | Leu 335 | Asp |
| Asn | Leu | Met | Asn 340 | Asn | Ala | Met | Arg | Tyr 345 | Ser | Glu | Thr | Thr | Leu | Arg | Ile |
| Gly | Leu | Asp 355 | Leu | Gln | Gly | Ser | Gln 360 | Ala | Ile | Leu | Cys | Val 365 | Glu | Asp | Asp |
| Gly | Pro | Gly | Ile | Glu | Pro | Ala | Glu | Arg | Glu | Lys | Val | Phe | Glu | Pro | Phe |

| | | |
|---|-------------------------|---------------------|
| 370 | 375 | 380 |
| Val Arg Leu Asp Pro Ser | Arg Asp Arg Ala Thr | Gly Gly Cys Gly Leu |
| 385 | 390 | 395 |
| Gly Leu Ala Ile Val Arg Ser Ile Ala Gln | Ala Met Gly Gly Ser Val | 400 |
| | 405 | 410 |
| Arg Cys Glu Ala Ser Glu Leu Gly Gly Ala Arg Phe Val Phe Ser Trp | 415 | |
| | 420 | 425 |
| Pro Ile Tyr His Asn Ile Pro Leu Pro Val Pro Ala | 430 | |
| | 435 | 440 |
| | | 445 |

<210> 7003

<211> 473

<212> PRT

<213> Enterobacter cloacae

<400> 7003

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| Leu Gly Leu Ser Ala Leu Thr Ala Leu Val Leu Ser Ser Met Leu Gly | |
| | 20 25 30 |
| Ala Gly Val Phe Ser Leu Pro Gln Asn Met Ala Ala Val Ala Ser Pro | |
| | 35 40 45 |
| Ala Ala Leu Leu Ile Gly Trp Gly Ile Thr Gly Val Gly Ile Leu Leu | |
| | 50 55 60 |
| Leu Ala Phe Ala Met Leu Leu Leu Thr Arg Ile Arg Pro Asp Leu Asp | |
| 65 | 70 75 80 |
| Gly Gly Ile Phe Thr Tyr Ala Arg Glu Gly Phe Gly Glu Leu Ile Gly | |
| | 85 90 95 |
| Phe Cys Ser Ala Trp Gly Tyr Trp Leu Cys Ala Val Ile Ala Asn Val | |
| | 100 105 110 |
| Ser Tyr Leu Val Ile Val Phe Ser Ala Leu Ser Phe Phe Thr Asp Thr | |
| | 115 120 125 |
| Pro Glu Leu Arg Leu Phe Gly Asp Gly Asn Thr Trp Gln Ser Ile Val | |
| | 130 135 140 |
| Gly Ala Ser Val Leu Leu Trp Ile Val His Trp Leu Ile Leu Arg Gly | |
| 145 | 150 155 160 |
| Val Gln Thr Ala Ala Ser Ile Asn Leu Val Ala Thr Leu Ala Lys Leu | |
| | 165 170 175 |
| Val Pro Leu Gly Leu Phe Val Val Leu Ala Phe Leu Ala Phe Arg Leu | |
| | 180 185 190 |
| Asp Val Phe Thr Leu Asp Phe Ser Gly Ile Ala Leu Gly Val Pro Val | |
| | 195 200 205 |
| Trp Glu Gln Val Lys Asn Thr Met Leu Ile Thr Leu Trp Val Phe Ile | |
| | 210 215 220 |
| Gly Val Glu Gly Ala Val Val Val Ser Ala Arg Ala Arg Asn Lys Arg | |
| 225 | 230 235 240 |
| Asp Val Gly Arg Ala Thr Leu Leu Ala Val Leu Ala Ala Leu Gly Val | |
| | 245 250 255 |
| Tyr Leu Leu Val Thr Leu Leu Ser Leu Gly Val Val Ala Arg Pro Glu | |
| | 260 265 270 |
| Leu Ala Glu Met Arg Asn Pro Ser Met Ala Gly Leu Met Val Lys Met | |
| | 275 280 285 |
| Leu Gly Pro Trp Gly Asp Val Ile Ile Ala Ala Gly Leu Ile Val Ser | |
| | 290 295 300 |
| Val Cys Gly Ala Tyr Leu Ser Trp Thr Ile Met Ala Ala Glu Val Pro | |
| 305 | 310 315 320 |
| Phe Leu Ala Ala Thr His Lys Ala Phe Pro Arg Leu Phe Ala Arg Gln | |
| | 325 330 335 |
| Asn Lys Asn Ser Ala Pro Ser Ala Ser Leu Trp Leu Thr Asn Ile Ser | |
| | 340 345 350 |
| Val Gln Val Cys Leu Val Leu Ile Trp Leu Thr Gly Ser Asp Tyr Asn | |


```

Asp Cys Ala Val Tyr Val Asp Val Phe Cys Asp Asp Arg Arg Cys Met
1      5      10      15
Asn Lys Ile Val Tyr Val Glu Asp Glu Pro Glu Val Gly Gln Leu Ile
20      25      30
Ala Ala Tyr Leu Gly Lys His Asp Met Glu Val Val Val Glu Pro Arg
35      40      45
Gly Asp Arg Ala Glu Asp Val Val Thr Arg Glu Asn Pro Asp Leu Val
50      55      60
Leu Leu Asp Ile Met Leu Pro Gly Lys Asp Gly Met Thr Leu Cys Arg
65      70      75
Asp Leu Arg Thr Lys Trp Asp Gly Pro Ile Val Leu Leu Thr Ser Leu
85      90      95
Asp Ser Asp Met Asn His Ile Leu Ser Leu Glu Met Gly Ala Asn Asp
100     105     110
Tyr Ile Leu Lys Thr Thr Pro Pro Ala Val Leu Leu Ala Arg Leu Arg
115     120     125
Leu His Leu Arg Gln Arg Ala Ser Gly Ala Glu Arg Glu Ala Ser Ala
130     135     140
Pro Ser Leu Thr Pro His Lys Ala Met Arg Phe Gly Thr Leu Ser Ile
145     150     155
Asp Pro Val Asn Arg Gln Val Met Leu Ser Gly Glu Leu Ile Ala Leu
165     170     175
Ser Thr Ala Asp Phe Asp Leu Leu Trp Glu Leu Ala Thr His Ala Gly
180     185     190
Gln Ile Met Asp Arg Asp Ala Leu Leu Lys Asn Leu Arg Gly Val Ser
195     200     205
Tyr Asp Gly Met Asp Arg Ser Val Asp Val Ala Ile Ser Arg Leu Arg
210     215     220
Lys Lys Leu Leu Asp Asn Ala Thr Glu Pro Tyr Arg Ile Lys Thr Val
225     230     235
Arg Asn Lys Gly Tyr Leu Phe Ala Pro His Ala Trp Glu Thr
245     250     255

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<210> 7006

<211> 330

<212> PRT

<213> Enterobacter cloacae

<400> 7006

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Gln Gln His Gln Tyr Met Val Cys Ala Arg Arg Arg Ile Ile Phe Met
1      5      10      15
Lys Leu Lys Asn Thr Leu Leu Ala Ser Ala Leu Leu Ser Ala Thr Ala
20      25      30
Leu Ser Ala Asn Ala Ala Thr Glu Leu Thr Pro Glu Gln Ala Ala Ala
35      40      45
Leu Lys Pro Phe Asp His Thr Val Ile Val Gly Arg Tyr Asn Ser Ile
50      55      60
Gly Asp Ala Val Ala Ala Ser Lys Ala Ala Asp Lys Asn Gly Ala
65      70      75
Ala Ser Phe Tyr Val Val Asp Gln Ser Asp Gln Gly Asn Ser Gly Asn
85      90      95
Gln Arg Val Thr Ile Ala Leu Tyr Lys Asp Asn Ala Pro Lys Ala Asp
100     105     110
Glu Gln Lys Asn Arg Val Ile Asn Gly Ile Val Glu Leu Pro Lys Asp
115     120     125
Gln Ala Val Gln Leu Glu Pro Tyr Asp Thr Val Thr Val Gln Gly Phe
130     135     140
Tyr Arg Ser Gln Pro Glu Val Asn Asp Ala Ile Thr Lys Ala Ala Arg
145     150     155
Glu Lys Gly Ala Tyr Ala Phe Tyr Ile Val Arg Gln Val Asp Ala Asn
165     170     175

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Gln Gly Gly Asn Gln Arg Ile Thr Ala Phe Ile Tyr Lys Gln Asp Ala
 180 185 190
 Lys Lys Arg Val Val Gln Ser Pro Asp Ala Ile Pro Ala Asp Ser Asp
 195 200 205
 Ala Gly Arg Ala Ala Leu Ala Lys Gly Gly Glu Glu Ala Lys Lys Val
 210 215 220
 Glu Ile Pro Gly Val Ala Thr Ser Ala Ala Pro Ser Ala Glu Val Gly
 225 230 235 240
 Arg Phe Phe Glu Thr Gln Ser Thr Lys Gly Gly Arg Tyr Thr Val Thr
 245 250 255
 Leu Pro Asp Gly Thr Lys Ile Glu Glu Leu Asn Lys Ala Thr Ala Ala
 260 265 270
 Gln Met Val Pro Phe Asp Ser Ile Lys Phe Thr Gly Asn Tyr Gly Asn
 275 280 285
 Met Thr Glu Ile Ser Tyr Gln Val Ala Lys Arg Ala Ala Lys Lys Gly
 290 295 300
 Ala Lys Tyr Tyr His Ile Thr Arg Gln Trp Gln Glu Arg Gly Asn Asn
 305 310 315 320
 Leu Thr Ile Ser Ala Asp Leu Tyr Lys
 325 330

<210> 7007

<211> 314

<212> PRT

<213> Enterobacter cloacae

<400> 7007

Leu Arg Ala Ala Met Thr Thr Tyr Asp Leu Ile Glu Arg Leu Asn Thr
 1 5 10 15
 Thr Phe Arg Glu Ile Glu Gln Ala Leu Thr Leu Thr Gly Gln Leu
 20 25 30
 Gln Asp Cys Arg Leu Leu Ala Ala Arg Val Phe Ser Leu Pro Glu Val
 35 40 45
 Ala Lys Gly Ala Glu His Asp Pro Leu Asn Thr Ile Glu Val Thr Gln
 50 55 60
 His Val Gly Lys Ala Ala Leu Glu Met Thr Leu Gln His Tyr Arg Arg
 65 70 75 80
 Leu Phe Ile Gln Gln Ser Glu Asn Arg Ser Ser Lys Ala Ala Val
 85 90 95
 Arg Leu Pro Gly Val Ile Cys Leu Gln Thr Asp Ala Ala Thr Arg Glu
 100 105 110
 Gly Ile Glu Ala Gln Ile Thr His Ile Asn Thr Leu Lys Ala Ala Phe
 115 120 125
 Glu Lys Ile Val Thr Val Glu Ser Gly Leu Ala Pro Ala Ala Arg Phe
 130 135 140
 Glu Trp Val His Arg Gln Leu Pro Gly Leu Ile Thr Leu Asn Ala Tyr
 145 150 155 160
 Arg Thr Leu Thr Val Leu Arg His Pro Ala Thr Leu Arg Phe Gly Trp
 165 170 175
 Ala Asn Lys His Ile Ile Lys Asn Phe Ala Arg Asp Glu Ile Leu Ala
 180 185 190
 Gln Leu Glu Lys Ser Leu Lys Ser Pro Arg Thr Val Ala Pro Trp Ser
 195 200 205
 Arg Glu Gln Trp Ile Glu Arg Leu Glu Gln Glu Tyr His Ser Ile Ala
 210 215 220
 Ser Leu Pro Ala Asp Thr Arg Leu Lys Ile Lys Arg Pro Val Lys Val
 225 230 235 240
 Gln Pro Ile Ala Arg Val Trp Tyr Ala Gly Gln Gln Lys Gln Val Gln
 245 250 255
 Tyr Ala Cys Pro Thr Pro Leu Ile Ala Leu Tyr Asp Ala Asp Gln Gly
 260 265 270

Ala Val Val Pro Asp Ile Gly Glu Leu Leu Asn Tyr Asp Ala Glu Asn
 275 280 285
 Val Gln His Arg Tyr Lys Pro Gln Ala Gln Pro Leu Gln Leu Ile Ile
 290 295 300
 Pro Arg Leu His Leu Tyr Val Ala Gln
 305 310

<210> 7008

<211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 7008

Tyr Ala Glu Leu Ile Pro His Met Asn Gln Gly Leu Ile Met Gln Lys
 1 5 10 15
 Leu Ile Asn Ser Val Gln Asn Tyr Ala Trp Gly Ser Lys Thr Ala Leu
 20 25 30
 Thr Asp Leu Tyr Gly Ile Ala Asn Pro Asp Asn Leu Pro Met Ala Glu
 35 40 45
 Leu Trp Met Gly Ala His Pro Lys Ser Ser Ser Lys Ile Glu Asp Ala
 50 55 60
 Ser Gly Gln Val Arg Ser Leu Arg Asp Val Ile Asp Ala Asp Lys Ala
 65 70 75 80
 Ala Leu Leu Gly Asp Lys Val Ala Asn Arg Phe Gly Glu Leu Pro Phe
 85 90 95
 Leu Phe Lys Val Leu Cys Ala Asp Gln Pro Leu Ser Ile Gln Val His
 100 105 110
 Pro Asn Lys Lys Ala Ser Glu Leu Gly Phe Ala Lys Glu Asn Ala Ala
 115 120 125
 Gly Ile Pro Leu Asp Ala Val Glu Arg Asn Tyr Lys Asp Pro Asn His
 130 135 140
 Lys Pro Glu Leu Val Phe Ala Leu Thr Pro Phe Leu Ala Met Asn Ala
 145 150 155 160
 Phe Arg Glu Phe Ser Glu Ile Ile Ser Leu Leu Gln Pro Val Ala Gly
 165 170 175
 Ala His Asn Ala Ile Ala His Phe Leu Glu Asn Pro Asn Ala Glu Ala
 180 185 190
 Leu Ser Glu Leu Phe Ala Ser Leu Leu Asn Met Gln Gly Glu Glu Lys
 195 200 205
 Ser His Ala Leu Ala Val Leu Lys Ala Ala Leu Asn Ser Gln Gln Gly
 210 215 220
 Glu Pro Trp Asp Thr Ile Arg Val Ile Ser Ala Phe Tyr Pro Asp Asp
 225 230 235 240
 Ser Gly Leu Phe Ser Pro Leu Leu Leu Asn Val Val Lys Leu Asn Pro
 245 250 255
 Gly Glu Ala Met Phe Leu Phe Ala Glu Thr Pro His Ala Tyr Leu Asn
 260 265 270
 Gly Val Ala Leu Glu Val Met Ala Asn Ser Asp Asn Val Leu Arg Ala
 275 280 285
 Gly Leu Thr Pro Lys Tyr Ile Asp Ile Pro Glu Leu Val Ala Asn Val
 290 295 300
 Lys Phe Val Ala Lys Pro Ala Ala Glu Leu Leu Thr Gln Pro Val Lys
 305 310 315 320
 Asn Gly Ala Glu Leu Asp Phe Pro Ile Pro Val Asp Asp Phe Ala Phe
 325 330 335
 Ser Leu His Asp Leu Ser Ala Asp Glu Thr Ala Ile Ala Gln Glu Ser
 340 345 350
 Ala Ala Ile Leu Phe Cys Val Glu Gly Glu Ala Thr Leu His Lys Asp
 355 360 365
 Ser Asp Arg Leu Val Leu Lys Pro Gly Glu Ser Ala Phe Val Ala Ala
 370 375 380

Asn Glu Ser Pro Val Arg Val Ser Gly Thr Gly Arg Leu Ala Arg Val
 385 390 395 400
 Phe Asn Lys Leu
 405

<210> 7009

<211> 536

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (527)

<400> 7009

Pro Pro Gly Phe Ile Leu Gly Ile Ile Ala Met Lys Lys Ser Val Val
 1 5 10 15
 Ala Val Gly Val Ile Val Ala Leu Gly Val Ile Trp Thr Gly Ala Ser
 20 25 30
 Trp Tyr Thr Gly Lys Gln Leu Glu Ser Arg Leu Ala Glu Met Met Thr
 35 40 45
 Gln Ala Asn Ser Glu Ile Lys Arg Ser Ala Pro Glu Ala Gly Leu Glu
 50 55 60
 Leu Ser Tyr Gln Asn Tyr Gln Arg Gly Val Phe Thr Ser His Met Gln
 65 70 75 80
 Val Val Val Lys Pro Val Ala Gly Asn Gln Asn Ala Trp Leu Lys Pro
 85 90 95
 Gly Gln Ser Val Val Leu Asp Glu Val Val Ser His Gly Pro Phe Pro
 100 105 110
 Leu Ala Gln Leu Lys Lys Phe Asn Leu Ile Pro Ser Met Ala Ser Ala
 115 120 125
 Arg Thr Val Leu Val Asn Asn Glu Val Thr Lys Pro Ile Phe Asp Met
 130 135 140
 Ala Lys Asn Glu Ser Pro Phe Glu Ile Asn Thr Arg Ile Ser Tyr Ala
 145 150 155 160
 Gly Asp Thr His Ser Asp Ile Asp Leu Lys Ala Leu Asn Tyr Glu Gln
 165 170 175
 Gly Thr Asp Lys Val Ala Phe Ser Gly Glu Asn Phe Gln Leu Asp Ala
 180 185 190
 Asp Arg Asp Gly Lys Asn Val Ser Leu Thr Gly Asp Ala Ala Ser Gly
 195 200 205
 Leu Val Asn Ser Val Asn Glu Tyr Asn Gln Lys Val Gln Leu Thr Phe
 210 215 220
 Asn Asn Leu Lys Ala Ser Gly Asn Ser Arg Met Thr Asp Phe Asp Glu
 225 230 235 240
 Arg Ile Gly Asp Gln Lys Leu Ser Leu Asp Lys Ile Ala Ile Ala Ile
 245 250 255
 Glu Gly Lys Glu Met Ala Val Leu Glu Gly Met Asp Leu Asp Gly Lys
 260 265 270
 Ser Asp Val Ser Lys Asp Gly Lys Ser Ile Asn Thr Gln Leu Asp Tyr
 275 280 285
 Ser Leu Lys Ser Leu Lys Val Gln Asn Gln Asp Leu Gly Thr Gly Lys
 290 295 300
 Leu Ser Leu Lys Ile Gly Asn Ile Asp Gly Gln Ala Trp His Glu Phe
 305 310 315 320
 Ser Gln Lys Tyr Ser Lys Glu Ser Gln Ala Leu Leu Thr Asp Ala Ala
 325 330 335
 Leu Gln Gln Asn Pro Gln Ala Tyr Gln Gln Gln Ala Met Thr Val Leu
 340 345 350
 Phe Asn Asn Leu Pro Ile Leu Leu Lys Gly Glu Pro Val Ile Thr Val
 355 360 365

Ala Pro Leu Ser Trp Lys Asn Gly Lys Gly Glu Thr Asn Phe Asn Leu
 370 375 380
 Ser Leu Phe Leu Lys Asp Pro Ala Ala Thr Thr Gly Glu Pro Gln Thr
 385 390 395 400
 Leu Ala Gln Glu Val Asp Arg Ser Val Lys Ser Leu Asp Ser Lys Leu
 405 410 415
 Thr Ile Pro Met Asp Met Ala Thr Glu Phe Met Thr His Ile Ala Lys
 420 425 430
 Leu Glu Gly Tyr Gly Glu Glu Asp Ala Gly Lys Leu Ala Asn Gln Gln
 435 440 445
 Val Lys Gly Leu Ala Ala Met Gly His Met Phe Arg Ile Thr Lys Val
 450 455 460
 Glu Asp Asn Thr Ile Ser Thr Ser Leu Gln Tyr Ala Asn Gly Gln Val
 465 470 475 480
 Thr Leu Asn Gly Asp Lys Met Pro Leu Glu Thr Val Cys Gln Tyr Val
 485 490 495
 Trp Tyr Gly Arg Thr Leu Gly Met Pro Glu Pro Ala Glu Thr Ala Ala
 500 505 510
 Pro Pro Ala Val Pro Gln Gln Tyr Thr Lys Asn Pro Ser His Xaa Gly
 515 520 525
 Phe Phe Ile Ala Gly Trp Arg
 530 535

<210> 7010

<211> 115

<212> PRT

<213> Enterobacter cloacae

<400> 7010

Gly Lys Arg Met Gly Leu Val Ile Lys Ala Thr Leu Gly Ala Leu Val
 1 5 10 15
 Val Leu Leu Ile Gly Val Leu Ala Lys Thr Lys Asn Tyr Tyr Ile Ala
 20 25 30
 Gly Leu Ile Pro Leu Phe Pro Thr Phe Ala Leu Ile Ala His Tyr Ile
 35 40 45
 Val Ala Ser Glu Arg Gly Ile Glu Ala Leu Arg Ala Thr Ile Val Phe
 50 55 60
 Gly Met Trp Ser Ile Ile Pro Tyr Phe Ile Tyr Leu Leu Ser Leu Trp
 65 70 75 80
 Tyr Phe Thr Gly Phe Leu Arg Leu Pro Leu Ala Leu Gly Gly Ala Val
 85 90 95
 Val Cys Trp Ser Leu Ser Ala Trp Val Leu Ile Phe Phe Trp Ser Arg
 100 105 110
 Phe His
 115

<210> 7011

<211> 466

<212> PRT

<213> Enterobacter cloacae

<400> 7011

Val Met Thr Met His Arg Arg Glu Lys Asp Ser Met Gly Ala Ile Asp
 1 5 10 15
 Val Pro Ala Asp Lys Leu Trp Gly Ala Gln Thr Gln Arg Ser Leu Glu
 20 25 30
 His Phe Arg Ile Ser Thr Glu Lys Met Pro Val Ser Leu Ile Gln Ala
 35 40 45
 Leu Ala Leu Thr Lys Arg Ala Ala Ala Lys Val Asn Gln Asp Leu Gly
 50 55 60
 Leu Leu Asp Ala Asp Lys Ala Thr Ala Ile Ile Asn Ala Ala Asp Glu

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Val | Leu | Ala | Gly | Lys | His | Pro | Asp | Glu | Phe | Pro | Leu | Ala | Ile | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 |
| Thr | Gly | Ser | Gly | Thr | Gln | Ser | Asn | Met | Asn | Met | Asn | Glu | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | Ala |
| Asn | Arg | Ala | Ser | Glu | Leu | Leu | Gly | Gly | Leu | Arg | Gly | Met | Glu | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | Lys |
| Ile | His | Pro | Asn | Asp | Asp | Val | Asn | Lys | Ser | Gln | Ser | Ser | Asn | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | Val |
| Phe | Pro | Thr | Ala | Met | His | Val | Ala | Ala | Val | Ile | Ala | Ile | Arg | Glu |
| | 145 | | | | 150 | | | | | 155 | | | | Gln |
| Leu | Ile | Pro | Gln | Leu | Asn | Val | Leu | Lys | Ser | Thr | Leu | Asn | Glu | Lys |
| | | | | 165 | | | | | 170 | | | | | Ala |
| Gln | Ala | Phe | Arg | Asp | Ile | Val | Lys | Ile | Gly | Arg | Thr | His | Leu | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | Asp |
| Ala | Thr | Pro | Leu | Thr | Leu | Gly | Gln | Glu | Ile | Ser | Gly | Trp | Val | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | Met |
| Leu | Glu | His | Asn | Leu | Lys | His | Ile | Asp | Asn | Ser | Leu | Pro | His | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | Ala |
| Glu | Leu | Ala | Leu | Gly | Gly | Thr | Ala | Val | Gly | Thr | Gly | Leu | Asn | Thr |
| | 225 | | | | 230 | | | | | 235 | | | | His |
| Pro | Glu | Tyr | Ala | Val | Arg | Val | Ala | Glu | Glu | Leu | Ala | Lys | Ile | Thr |
| | | | 245 | | | | | 250 | | | | | | Gly |
| Gln | Pro | Phe | Val | Thr | Ala | Pro | Asn | Lys | Phe | Glu | Ala | Leu | Ala | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | Cys |
| Asp | Ala | Leu | Val | His | Thr | His | Gly | Ala | Leu | Lys | Gly | Leu | Ala | Ala |
| | 275 | | | | | | 280 | | | | | 285 | | Ser |
| Leu | Met | Lys | Ile | Ala | Asn | Asp | Val | Arg | Trp | Leu | Ala | Ser | Gly | Pro |
| | 290 | | | | | 295 | | | | 300 | | | | Arg |
| Cys | Gly | Ile | Gly | Glu | Ile | Ser | Ile | Pro | Glu | Asn | Glu | Pro | Gly | Ser |
| | 305 | | | | 310 | | | | | 315 | | | | Ser |
| Ile | Met | Pro | Gly | Lys | Val | Asn | Pro | Thr | Gln | Cys | Glu | Ala | Met | Thr |
| | | | 325 | | | | | | 330 | | | | | Met |
| Leu | Cys | Cys | Gln | Val | Met | Gly | Asn | Asp | Val | Ala | Val | Asn | Met | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | Gly |
| Ala | Ser | Gly | Asn | Phe | Glu | Leu | Asn | Val | Tyr | Arg | Pro | Met | Val | Ile |
| | | 355 | | | | | 360 | | | | | 365 | | His |
| Asn | Val | Leu | Gln | Ser | Ile | Arg | Leu | Leu | Ala | Asp | Gly | Met | Glu | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | Phe |
| Asn | Glu | His | Cys | Ala | Val | Gly | Ile | Glu | Pro | Asn | Arg | Glu | Arg | Ile |
| | 385 | | | | 390 | | | | | 395 | | | | Ser |
| Gln | Leu | Leu | Asn | Glu | Ser | Leu | Met | Leu | Val | Thr | Ala | Leu | Asn | Thr |
| | | | 405 | | | | | | 410 | | | | | His |
| Ile | Gly | Tyr | Asp | Lys | Ala | Ala | Glu | Ile | Ala | Lys | Lys | Ala | His | Lys |
| | | | 420 | | | | 425 | | | | | | 430 | Glu |
| Gly | Leu | Thr | Leu | Lys | Ala | Ser | Ala | Leu | Ala | Leu | Gly | Tyr | Leu | Thr |
| | | 435 | | | | | 440 | | | | | 445 | | Asp |
| Ala | Glu | Phe | Asp | Ala | Trp | Val | Arg | Pro | Glu | Ala | Met | Val | Gly | Ser |
| | 450 | | | | | 455 | | | | | 460 | | | Leu |
| Arg | | | | | | | | | | | | | | |
| 465 | | | | | | | | | | | | | | |

<210> 7012

<211> 572

<212> PRT

<213> Enterobacter cloacae

<400> 7012

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ala | Phe | Lys | Pro | Gly | Ser | Gly | Thr | Ser | Ala | Leu | Asn | Lys | Gln | Thr |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Glu | Ala | Val | Ser | Glu | Arg | Thr | Met | Ser | Asn | Lys | Pro | Phe | His | Tyr | Gln |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | 25 | | | | 30 | | | | |
| Asp | Pro | Phe | Pro | Leu | Ser | Gln | Asp | Gln | Thr | Glu | Tyr | Tyr | Leu | Leu | Thr |
| | | | 35 | | | | 40 | | | | 45 | | | | |
| Arg | Asp | Tyr | Val | Thr | Val | Ser | Glu | Phe | Glu | Gly | Gln | Glu | Ile | Leu | Lys |
| | | | 50 | | | | 55 | | | | 60 | | | | |
| Val | Asp | Pro | Gln | Gly | Leu | Thr | Leu | Leu | Ala | Gln | Gln | Ala | Phe | His | Asp |
| 65 | | | | 70 | | | | 75 | | | | 80 | | | |
| Ala | Ser | Phe | Met | Leu | Arg | Pro | Ala | His | Gln | Gln | Val | Ala | Asp | Ile | |
| | | | 85 | | | | 90 | | | | 95 | | | | |
| Leu | Ser | Asp | Pro | Glu | Ala | Ser | Glu | Asn | Asp | Lys | Tyr | Val | Ala | Leu | Gln |
| | | | 100 | | | | 105 | | | | 110 | | | | |
| Phe | Leu | Arg | Asn | Ser | Asp | Ile | Ala | Ala | Lys | Gly | Ile | Leu | Pro | Thr | Cys |
| | | | 115 | | | | 120 | | | | 125 | | | | |
| Gln | Asp | Thr | Gly | Thr | Ala | Ile | Ile | Thr | Gly | Lys | Lys | Gly | Gln | Arg | Val |
| | | | 130 | | | | 135 | | | | 140 | | | | |
| Trp | Thr | Gly | Gly | Gly | Asp | Glu | Ala | Thr | Leu | Ala | Arg | Gly | Val | Tyr | Asn |
| 145 | | | | 150 | | | | 155 | | | | 160 | | | |
| Thr | Tyr | Thr | Glu | Asp | Asn | Leu | Arg | Tyr | Ser | Gln | Asn | Ala | Ala | Leu | Asp |
| | | | 165 | | | | 170 | | | | 175 | | | | |
| Met | Tyr | Lys | Glu | Val | Asn | Thr | Gly | Thr | Asn | Leu | Pro | Ala | Gln | Ile | Asp |
| | | | 180 | | | | 185 | | | | 190 | | | | |
| Leu | Tyr | Ser | Val | Asp | Gly | Asp | Glu | Tyr | Lys | Phe | Leu | Cys | Ile | Ala | Lys |
| | | | 195 | | | | 200 | | | | 205 | | | | |
| Gly | Gly | Gly | Ser | Ala | Asn | Lys | Thr | Tyr | Leu | Tyr | Gln | Glu | Thr | Lys | Ala |
| | | | 210 | | | | 215 | | | | 220 | | | | |
| Leu | Leu | Thr | Pro | Gly | Lys | Leu | Lys | Asn | Tyr | Leu | Val | Glu | Lys | Met | Arg |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Thr | Leu | Gly | Thr | Ala | Ala | Cys | Pro | Pro | Tyr | His | Ile | Ala | Phe | Val | Ile |
| | | | 245 | | | | 250 | | | | 255 | | | | |
| Gly | Gly | Thr | Ser | Ala | Glu | Ser | Thr | Leu | Lys | Thr | Val | Lys | Leu | Ala | Ser |
| | | | 260 | | | | 265 | | | | 270 | | | | |
| Thr | Lys | Tyr | Tyr | Asp | Gly | Leu | Pro | Thr | Glu | Gly | Asn | Glu | His | Gly | Gln |
| | | | 275 | | | | 280 | | | | 285 | | | | |
| Ala | Phe | Arg | Asp | Val | Gln | Leu | Glu | Gln | Glu | Leu | Leu | Ala | Glu | Ala | Gln |
| | | | 290 | | | | 295 | | | | 300 | | | | |
| Asn | Leu | Gly | Leu | Gly | Ala | Gln | Phe | Gly | Gly | Lys | Tyr | Phe | Ala | His | Asp |
| 305 | | | | 310 | | | | 315 | | | | 320 | | | |
| Ile | Arg | Val | Ile | Arg | Leu | Pro | Arg | His | Gly | Ala | Ser | Cys | Pro | Val | Gly |
| | | | 325 | | | | 330 | | | | 335 | | | | |
| Met | Gly | Val | Ser | Cys | Ser | Ala | Asp | Arg | Asn | Ile | Lys | Ala | Lys | Ile | Asn |
| | | | 340 | | | | 345 | | | | 350 | | | | |
| Arg | Asp | Gly | Ile | Trp | Ile | Glu | Lys | Leu | Glu | Asn | Asn | Pro | Gly | Lys | Tyr |
| | | | 355 | | | | 360 | | | | 365 | | | | |
| Ile | Pro | Glu | Glu | Leu | Arg | Lys | Ala | Gly | Glu | Gly | Glu | Ala | Val | Arg | Val |
| | | | 370 | | | | 375 | | | | 380 | | | | |
| Asp | Leu | Asn | Arg | Pro | Met | Lys | Glu | Ile | Leu | Ala | Gln | Leu | Ser | Gln | Tyr |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Pro | Val | Ser | Thr | Arg | Leu | Ser | Leu | Asn | Gly | Thr | Ile | Ile | Val | Gly | Arg |
| | | | 405 | | | | 410 | | | | 415 | | | | |
| Asp | Ile | Ala | His | Ala | Lys | Leu | Lys | Glu | Arg | Leu | Asp | Asn | Gly | Glu | Gly |
| | | | 420 | | | | 425 | | | | 430 | | | | |
| Leu | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Leu | Ala | Gln | Gly | Ser | Ile | Lys | Ser | Leu | Glu | Cys | Val | Glu | Tyr |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Pro | Glu | Leu | Gly | Met | Glu | Ala | Ile | Trp | Lys | Ile | Glu | Val | Glu | Asp | Phe |
| | | 530 | | | | | 535 | | | | 540 | | | | |
| Pro | Ala | Phe | Ile | Leu | Val | Asp | Asp | Lys | Gly | Asn | Asp | Phe | Phe | Lys | Gln |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ile | Gln | Ser | Ser | Gln | Cys | Ser | Ala | Cys | Val | Lys | | | | | |
| | | | | 565 | | | | | 570 | | | | | | |

<210> 7013

<211> 313

<212> PRT

<213> Enterobacter cloacae

<400> 7013

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Phe | Lys | Met | Val | Lys | Val | Tyr | Ala | Pro | Ala | Ser | Ser | Ala | Asn | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Val | Gly | Phe | Asp | Val | Leu | Gly | Ala | Ala | Val | Thr | Pro | Val | Asp | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Leu | Gly | Asp | Thr | Val | Thr | Val | Glu | Ala | Ala | Glu | Arg | Phe | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Asn | Asn | Ile | Gly | Arg | Phe | Ala | Ser | Lys | Leu | Pro | Ser | Glu | Pro | Arg |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Glu | Asn | Ile | Val | Tyr | Gln | Cys | Trp | Glu | Arg | Phe | Cys | Gln | Glu | Ile | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Asn | Val | Pro | Val | Ala | Met | Thr | Leu | Glu | Lys | Ser | Met | Pro | Ile | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Gly | Leu | Gly | Ser | Ser | Ala | Cys | Ser | Val | Val | Ala | Ala | Leu | Val | Ala |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Met | Asn | Glu | His | Cys | Gly | Lys | Pro | Leu | Asn | Asn | Ser | Arg | Leu | Leu | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Met | Gly | Glu | Leu | Glu | Gly | Arg | Ile | Ser | Gly | Ser | Ile | His | Tyr | Asp |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Asn | Val | Ala | Pro | Cys | Phe | Leu | Gly | Gly | Met | Gln | Leu | Met | Ile | Glu | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Gly | Ile | Ile | Ser | Gln | Gln | Val | Pro | Gly | Phe | Asp | Glu | Trp | Leu | Trp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Leu | Ala | Tyr | Pro | Gly | Ile | Lys | Val | Ser | Thr | Ala | Glu | Ala | Arg | Ala |
| | | 180 | | | | | | 185 | | | | | | 190 | |
| Ile | Leu | Pro | Ala | Gln | Tyr | Arg | Arg | Gln | Asp | Cys | Ile | Ala | His | Gly | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| His | Leu | Ala | Gly | Phe | Ile | His | Ala | Cys | Tyr | Thr | Arg | Gln | Pro | Gln | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ala | Ala | Lys | Leu | Met | Lys | Asp | Ile | Ile | Ala | Glu | Pro | Tyr | Arg | Thr | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Leu | Pro | Gly | Phe | Asn | Glu | Ala | Arg | Gln | Ala | Ser | Met | Asp | Ile | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Gln | Ala | Cys | Gly | Ile | Ser | Gly | Ser | Gly | Pro | Thr | Leu | Phe | Ala | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Cys | Asp | Lys | Pro | Asp | Thr | Ala | Gln | Arg | Val | Ala | Asp | Trp | Leu | Ser | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| His | Tyr | Leu | Gln | Asn | Gln | Glu | Gly | Phe | Val | His | Ile | Cys | Arg | Leu | Asp |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Thr | Ala | Gly | Ala | Arg | Val | Leu | Gly | | | | | | | | |
| 305 | | | | | | 310 | | | | | | | | | |

<210> 7014

<211> 430

<212> PRT

<213> Enterobacter cloacae

<400> 7014

Arg Met Lys Leu Tyr Asn Leu Lys Asp His Asn Glu Gln Val Ser Phe
 1 5 10 15
 Ala Gln Ala Val Thr Gln Gly Leu Gly Lys Asn Gln Gly Leu Phe Phe
 20 25 30
 Pro His Asp Leu Pro Glu Phe Gln Leu Thr Glu Ile Asp Glu Leu Leu
 35 40 45
 Lys Gln Asp Phe Val Thr Arg Ser Thr Lys Ile Leu Ser Ala Phe Ile
 50 55 60
 Gly Asp Glu Ile Pro Gln Glu Leu Leu Glu Glu Arg Val Arg Ala Ala
 65 70 75 80
 Phe Ala Phe Pro Ala Pro Val Lys Gln Val Glu Pro Asp Val Gly Cys
 85 90 95
 Leu Glu Leu Phe His Gly Pro Thr Leu Ala Phe Lys Asp Phe Gly Gly
 100 105 110
 Arg Phe Met Ala Gln Met Leu Thr His Ile Ser Gly Asp Lys Pro Val
 115 120 125
 Thr Ile Leu Thr Ala Thr Ser Gly Asp Thr Gly Ala Ala Val Ala His
 130 135 140
 Ala Phe Tyr Gly Leu Lys Asn Val Arg Val Val Ile Leu Tyr Pro Lys
 145 150 155 160
 Gly Lys Ile Ser Pro Leu Gln Glu Lys Leu Phe Cys Thr Leu Gly Gly
 165 170 175
 Asn Ile Glu Thr Val Ala Ile Asp Gly Asp Phe Asp Ala Cys Gln Ala
 180 185 190
 Leu Val Lys Gln Ala Phe Asp Asp Glu Glu Leu Lys Ala Ala Leu Gly
 195 200 205
 Leu Asn Ser Ala Asn Ser Ile Asn Ile Ser Arg Leu Leu Ala Gln Ile
 210 215 220
 Cys Tyr Tyr Phe Glu Ala Val Ala Gln Leu Pro Gln Asp Ala Arg Asn
 225 230 235 240
 Gln Leu Val Val Ser Val Pro Ser Gly Asn Phe Gly Asp Leu Thr Ala
 245 250 255
 Gly Leu Leu Ala Lys Ser Leu Gly Leu Pro Val Lys Arg Phe Ile Ala
 260 265 270
 Ala Thr Asn Ala Asn Asp Thr Val Pro Arg Phe Leu Lys Asp Gly Lys
 275 280 285
 Trp Ala Pro Asn Ala Thr Gln Ala Thr Leu Ser Asn Ala Met Asp Val
 290 295 300
 Ser Gln Pro Asn Asn Trp Pro Arg Val Glu Glu Leu Phe Arg Arg Lys
 305 310 315 320
 Val Trp Arg Leu Gly Asp Leu Gly Tyr Ala Ala Val Thr Asp Glu Thr
 325 330 335
 Thr Lys Ala Thr Met Arg Glu Leu Lys Ala Val Gly Tyr Thr Ser Glu
 340 345 350
 Pro His Ala Ala Ile Ala Tyr Arg Ala Leu Arg Asp Gln Leu Gln Pro
 355 360 365
 Gly Glu Tyr Gly Leu Phe Leu Gly Thr Ala His Pro Ala Lys Phe Lys
 370 375 380
 Glu Ser Val Glu Ala Ile Leu Gly Glu Thr Leu Pro Leu Pro Lys Glu
 385 390 395 400
 Leu Ala Glu Arg Ala Asp Leu Pro Leu Leu Ser His Glu Leu Pro Ala
 405 410 415
 Asp Phe Ala Ala Leu Arg Lys Leu Met Met Thr Arg Ala
 420 425 430

<210> 7015

<211> 323

<212> PRT

<213> Enterobacter cloacae

<400> 7015

Lys Arg Asn Thr Ile Met Thr Asp Lys Leu Thr Ser Leu Arg Gln Phe
 1 5 10 15
 Thr Thr Val Val Ala Asp Thr Gly Asp Ile Ala Ala Met Lys Leu Tyr
 20 25 30
 Gln Pro Gln Asp Ala Thr Thr Asn Pro Ser Leu Ile Leu Asn Ala Ala
 35 40 45
 Gln Leu Pro Glu Tyr Arg Lys Leu Ile Asp Glu Ala Val Thr Trp Ala
 50 55 60
 Lys Ala Gln Ser Asn Asp Arg Ala Gln Gln Val Val Asp Ala Thr Asp
 65 70 75 80
 Lys Leu Ala Val Asn Ile Gly Leu Glu Ile Leu Lys Leu Val Pro Gly
 85 90 95
 Arg Ile Ser Thr Glu Val Asp Ala Arg Leu Ser Tyr Asp Thr Glu Ala
 100 105 110
 Ser Ile Ala Lys Ala Lys Arg Leu Ile Lys Leu Tyr Asn Asp Ala Gly
 115 120 125
 Ile Ser Asn Asp Arg Ile Leu Ile Lys Leu Ala Ser Thr Trp Gln Gly
 130 135 140
 Ile Arg Ala Ala Glu Gln Leu Glu Lys Glu Gly Ile Asn Cys Asn Leu
 145 150 155 160
 Thr Leu Leu Phe Ser Phe Ala Gln Ala Arg Ala Cys Ala Glu Ala Gly
 165 170 175
 Val Tyr Leu Ile Ser Pro Phe Val Gly Arg Ile Leu Asp Trp Tyr Lys
 180 185 190
 Ala Asn Thr Asp Lys Lys Glu Tyr Ala Ala Ser Glu Asp Pro Gly Val
 195 200 205
 Ile Ser Val Thr Glu Ile Tyr Glu Tyr Tyr Lys Gln His Gly Tyr Glu
 210 215 220
 Thr Val Val Met Gly Ala Ser Phe Arg Asn Val Gly Glu Ile Ile Glu
 225 230 235 240
 Leu Ala Gly Cys Asp Arg Leu Thr Ile Ala Pro Ala Leu Leu Lys Glu
 245 250 255
 Leu Ala Glu Ser Glu Gly Ala Ile Glu Arg Lys Leu Ser Tyr Thr Gly
 260 265 270
 Glu Val Lys Ala Arg Pro Glu Arg Ile Thr Glu Ser Glu Phe Leu Trp
 275 280 285
 Gln His Asn Gln Asp Pro Met Ala Val Asp Lys Leu Ala Asp Gly Ile
 290 295 300
 Arg Lys Phe Ala Ile Asp Gln Glu Lys Leu Glu Lys Met Ile Gly Asp
 305 310 315 320
 Leu Leu

<210> 7016

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 7016

Pro Glu Arg Asp Phe Cys Arg Val Ala Ala Thr Pro Tyr Arg Ala Tyr
 1 5 10 15
 Asn Gly Ser Glu Arg Arg Pro Gly Lys Arg Ser Ala Thr Arg Leu Phe
 20 25 30
 Tyr Gly Glu Ile Lys Glu Lys Asn Ser Arg Lys Lys Ala Glu Ile Pro
 35 40 45
 Asn Lys Cys Gly His Leu Ala Phe Arg Ile Ala Glu Asn Asn Ile Pro
 50 55 60
 Arg Ser His His Val Leu Ser Leu His Arg Pro Thr Leu Gly Lys Lys
 65 70 75 80
 Asn Lys Glu Ser Pro Met Ser Thr Leu Lys Pro Ala Leu Ile Ala Leu

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | | 90 | | | | 95 | | | | |
| Ser | Leu | Met | Leu | Val | Ala | Pro | Met | Ala | Val | Gln | Ala | Ala | Glu | Ile | Thr | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Leu | Val | Pro | Ala | Val | Lys | Leu | Gln | Ile | Gly | Asp | Arg | Asp | Asn | Asn | Gly | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| His | Tyr | Trp | Asp | Gly | Gly | Arg | Trp | Arg | Asp | His | Asp | Trp | Trp | Lys | Ala | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| His | Tyr | Asp | Trp | Arg | Asp | Asn | His | Trp | Arg | Pro | His | Asp | Glu | His | Arg | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Asp | Arg | Asp | Asp | His | His | Arg | His | Asp | Asp | Arg | Arg | Pro | Asp | Arg | Lys | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| His | Tyr | | | | | | | | | | | | | | | | |

<210> 7017

<211> 450

<212> PRT

<213> Enterobacter cloacae

<400> 7017

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ser | Thr | Thr | His | Ala | Gln | Trp | Phe | Ala | Met | Ser | His | Asn | Thr | Arg | Pro | | |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | | | |
| Leu | Asn | Arg | Gln | Asp | Tyr | Lys | Thr | Leu | Thr | Leu | Ala | Ala | Leu | Gly | Gly | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Ala | Leu | Glu | Phe | Tyr | Asp | Phe | Ile | Ile | Phe | Val | Phe | Phe | Ala | Ala | Val | | |
| | | 35 | | | | 40 | | | | | | 45 | | | | | |
| Val | Gly | Ala | Leu | Phe | Phe | Pro | Ala | Asp | Ile | Pro | Glu | Trp | Leu | Arg | Gln | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Val | Gln | Thr | Phe | Gly | Ile | Phe | Ala | Ala | Gly | Tyr | Leu | Ala | Arg | Pro | Leu | | |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 | | |
| Gly | Gly | Ile | Val | Met | Ala | His | Phe | Gly | Asp | Leu | Val | Gly | Arg | Lys | Lys | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| Met | Phe | Thr | Leu | Ser | Ile | Leu | Leu | Met | Ala | Val | Pro | Thr | Leu | Ala | Ile | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Gly | Leu | Leu | Pro | Thr | Tyr | Glu | Ser | Met | Gly | Ile | Ile | Ala | Pro | Leu | Leu | | |
| | | 115 | | | | 120 | | | | | | 125 | | | | | |
| Leu | Leu | Leu | Met | Arg | Ile | Leu | Gln | Gly | Ala | Ala | Ile | Gly | Gly | Glu | Val | | |
| | | 130 | | | | 135 | | | | | | 140 | | | | | |
| Pro | Gly | Ala | Trp | Val | Phe | Val | Ala | Glu | His | Val | Pro | Val | Arg | Arg | Ile | | |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 | | |
| Gly | Ile | Ala | Cys | Gly | Thr | Leu | Thr | Ala | Gly | Leu | Thr | Ile | Gly | Ile | Leu | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | |
| Phe | Gly | Ser | Val | Val | Ala | Thr | Ile | Ile | Asn | Thr | Ser | Met | Thr | Gln | Gln | | |
| | | | 180 | | | | | | 185 | | | | | 190 | | | |
| Ala | Val | His | Asp | Trp | Gly | Trp | Arg | Ile | Pro | Phe | Leu | Leu | Gly | Gly | Ala | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Phe | Gly | Leu | Val | Ala | Met | Tyr | Leu | Arg | Arg | Trp | Leu | Gln | Glu | Thr | Pro | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Ile | Phe | Leu | Glu | Met | Gln | Gln | Arg | Lys | Ala | Leu | Ala | Gln | Glu | Leu | Pro | | |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 | | |
| Val | Lys | Thr | Val | Val | Val | Arg | His | Lys | Lys | Ala | Val | Val | Val | Ser | Met | | |
| | | | 245 | | | | | | 250 | | | | | 255 | | | |
| Leu | Leu | Thr | Trp | Leu | Leu | Ser | Ala | Gly | Ile | Val | Val | Val | Ile | Leu | Met | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Ser | Pro | Val | Trp | Leu | Gln | Lys | Gln | Tyr | Gly | Phe | Ala | Pro | Ala | Val | Thr | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Leu | Gln | Ala | Asn | Ser | Ile | Ala | Thr | Ile | Met | Leu | Cys | Phe | Gly | Cys | Leu | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Ala | Ala | Gly | Leu | Ala | Ala | Asp | Arg | Phe | Gly | Ala | Ser | Val | Thr | Phe | Ile | | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | | |
| Val | Gly | Ser | Leu | Leu | Leu | Ala | Ala | Ser | Ser | Trp | Ala | Phe | Tyr | His | Leu | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | 325 | | | | | 330 | | | | 335 | | | |
| Ala | Gly | Thr | His | Pro | Glu | Gln | Leu | Phe | Leu | Leu | Tyr | Gly | Val | Val | Gly | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Leu | Cys | Val | Gly | Val | Val | Gly | Ala | Val | Pro | Tyr | Val | Met | Val | Arg | Ala | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Phe | Pro | Pro | Glu | Val | Arg | Phe | Thr | Gly | Ile | Ser | Phe | Ser | Tyr | Asn | Val | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Ser | Tyr | Ala | Ile | Phe | Gly | Gly | Leu | Thr | Pro | Ile | Val | Val | Thr | Val | Leu | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Met | Gly | Leu | Ser | Pro | Leu | Ala | Pro | Ala | Trp | Tyr | Val | Leu | Ala | Leu | Ser | |
| | | | 405 | | | | | | 410 | | | | | 415 | | |
| Leu | Met | Gly | Leu | Val | Leu | Gly | Met | Trp | Leu | Arg | Gln | Ser | Glu | Gly | Arg | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Arg | Ala | Arg | Asp | Ala | Gly | Thr | Thr | Glu | Gly | Ser | Val | Phe | Phe | Thr | Asn | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Arg | | | | | | | | | | | | | | | | |
| | 450 | | | | | | | | | | | | | | | |

<210> 7018

<211> 822

<212> PRT

<213> Enterobacter cloacae

<400> 7018

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Asn | Met | Arg | Val | Leu | Lys | Phe | Gly | Gly | Thr | Ser | Val | Ala | Asn | Ala | Glu | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | |
| Arg | Phe | Leu | Arg | Val | Ala | Asp | Ile | Leu | Glu | Ser | Asn | Ala | Arg | Gln | Gly | |
| | | | 20 | | | | | 25 | | | | 30 | | | | |
| Gln | Val | Ala | Thr | Val | Leu | Ser | Ala | Pro | Ala | Lys | Ile | Thr | Asn | His | Leu | |
| | | 35 | | | | | 40 | | | | 45 | | | | | |
| Val | Ala | Met | Ile | Glu | Lys | Thr | Ile | Gly | Gly | Gln | Asp | Ala | Leu | Pro | Asn | |
| | 50 | | | | | 55 | | | | 60 | | | | | | |
| Ile | Ser | Asp | Ala | Glu | Arg | Ile | Phe | Ala | Asp | Leu | Leu | Gln | Gly | Leu | Ala | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | |
| Asp | Ala | Gln | Pro | Gly | Phe | Pro | Leu | Ala | Gln | Leu | Lys | Ser | Thr | Val | Glu | |
| | | | | 85 | | | | 90 | | | | | | 95 | | |
| Leu | Glu | Phe | Ala | Gln | Ile | Lys | His | Val | Leu | His | Gly | Ile | Ser | Leu | Leu | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Gly | Gln | Cys | Pro | Asp | Ser | Ile | Asn | Ala | Ala | Leu | Ile | Cys | Arg | Gly | Glu | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Lys | Leu | Ser | Ile | Ala | Ile | Met | Ala | Gly | Val | Leu | Glu | Ala | Arg | Gly | His | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| His | Val | Thr | Val | Ile | Asp | Pro | Val | Glu | Lys | Leu | Leu | Ala | Val | Gly | His | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | |
| Tyr | Leu | Glu | Ser | Thr | Val | Asp | Ile | Ala | Glu | Ser | Thr | Arg | Arg | Ile | Ala | |
| | | | | 165 | | | | 170 | | | | | | 175 | | |
| Ala | Ser | Lys | Ile | Pro | Ser | Asp | His | Met | Ile | Leu | Met | Ala | Gly | Phe | Thr | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Ala | Gly | Asn | Glu | Lys | Gly | Glu | Leu | Val | Val | Leu | Gly | Arg | Asn | Gly | Ser | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Asp | Tyr | Ser | Ala | Ala | Val | Leu | Ala | Ala | Cys | Leu | Arg | Ala | Asp | Cys | Cys | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Glu | Ile | Trp | Thr | Asp | Val | Asp | Gly | Val | Tyr | Thr | Cys | Asp | Pro | Arg | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Val | Pro | Asp | Ala | Arg | Leu | Leu | Lys | Ser | Met | Ser | Tyr | Gln | Glu | Ala | Met | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Glu | Leu | Ser | Tyr | Phe | Gly | Ala | Lys | Val | Leu | His | Pro | Arg | Thr | Ile | Ser | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Pro | Ile | Ala | Gln | Phe | Gln | Ile | Pro | Cys | Leu | Ile | Lys | Asn | Thr | Gly | Asn | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Pro | Gln | Ala | Pro | Gly | Thr | Leu | Ile | Gly | Ala | Ser | Ala | Asp | Glu | Asp | Asp | |

| | | |
|---|-----|-----|
| 290 | 295 | 300 |
| Leu Pro Val Lys Gly Ile Ser Asn Leu Asn Asn Met Ala Met Phe Ser | | |
| 305 | 310 | 315 |
| Val Ser Gly Pro Gly Met Lys Gly Met Val Gly Met Ala Ala Arg Val | | |
| | 325 | 330 |
| Phe Ala Ala Met Ser Arg Asn Gly Ile Ser Val Val Leu Ile Thr Gln | | |
| | 340 | 345 |
| Ser Ser Ser Glu Tyr Ser Ile Ser Phe Cys Val Pro Gln Gly Asp Cys | | |
| | 355 | 360 |
| Leu Arg Ala Arg Arg Ala Leu Glu Glu Glu Phe Tyr Leu Glu Leu Lys | | |
| | 370 | 375 |
| Glu Glu Leu Leu Glu Pro Leu Ser Ile Gln Glu Arg Leu Ala Ile Ile | | |
| 385 | 390 | 395 |
| Ser Val Val Gly Asp Gly Met Arg Thr Leu Arg Gly Ile Ser Ala Lys | | |
| | 405 | 410 |
| Phe Phe Ala Ala Leu Ala Arg Ala Asn Ile Asn Ile Val Ala Ile Ala | | |
| | 420 | 425 |
| Gln Gly Ser Ser Glu Arg Ser Ile Ser Val Val Val Asp Asn Asp Asp | | |
| | 435 | 440 |
| Ala Thr Thr Gly Val Arg Val Val His Gln Met Leu Phe Asn Thr Asp | | |
| | 450 | 455 |
| Gln Val Ile Glu Leu Phe Leu Val Gly Val Gly Gly Val Gly Gly Ala | | |
| 465 | 470 | 475 |
| Leu Leu Glu Gln Val Lys Arg Gln Gln Glu Trp Leu Lys Lys Lys His | | |
| | 485 | 490 |
| Ile Asp Leu Arg Val Cys Gly Ile Ala Asn Ser Lys Ala Leu Leu Thr | | |
| | 500 | 505 |
| Asn Val His Gly Leu Asn Leu Glu Asn Trp Gln Ala Glu Leu Glu Glu | | |
| | 515 | 520 |
| Ala Lys Glu Pro Phe Asn Leu Gly Arg Leu Ile Arg Leu Val Lys Glu | | |
| | 530 | 535 |
| Tyr His Leu Leu Asn Pro Val Ile Val Asp Cys Thr Ser Ser Gln Ala | | |
| 545 | 550 | 555 |
| Val Ala Asp Gln Tyr Ala Asp Phe Leu Arg Glu Gly Phe His Val Val | | |
| | 565 | 570 |
| Thr Pro Asn Lys Lys Ala Asn Thr Ser Ser Met Asp Tyr Tyr His Gln | | |
| | 580 | 585 |
| Leu Arg Leu Ala Ala Ser Lys Ser Arg Arg Lys Phe Leu Tyr Asp Thr | | |
| | 595 | 600 |
| Asn Val Gly Ala Gly Leu Pro Val Ile Glu Asn Leu Gln Asn Leu Leu | | |
| | 610 | 615 |
| Asn Ala Gly Asp Glu Leu Lys Arg Phe Ser Gly Ile Leu Ser Gly Ser | | |
| 625 | 630 | 635 |
| Leu Ser Phe Ile Phe Gly Lys Leu Asp Glu Gly Met Ser Leu Ser Glu | | |
| | 645 | 650 |
| Ala Thr Arg Ala Ala Arg Glu Leu Gly Tyr Thr Glu Pro Asp Pro Arg | | |
| | 660 | 665 |
| Asp Asp Leu Ser Gly Met Asp Val Ala Arg Lys Leu Leu Ile Leu Val | | |
| | 675 | 680 |
| Arg Glu Thr Gly Arg Glu Leu Glu Leu Ser Asp Ile Val Ile Glu Pro | | |
| | 690 | 695 |
| Val Leu Pro Ala Glu Phe Asp Asp Ser Gly Asp Val Ser Ala Phe Met | | |
| 705 | 710 | 715 |
| Ala Asn Leu Pro Gln Leu Asp Asp Ala Phe Ala Ala Arg Val Ala Lys | | |
| | 725 | 730 |
| Ala Arg Asp Glu Gly Lys Val Leu Arg Tyr Val Gly Asn Ile Glu Glu | | |
| | 740 | 745 |
| Asp Gly Val Cys Arg Val Lys Ile Ala Glu Val Asp Gly Asn Asp Pro | | |
| | 755 | 760 |
| Leu Tyr Lys Val Lys Asn Gly Glu Asn Ala Leu Ala Phe Tyr Ser His | | |
| | 770 | 775 |
| | | 780 |

Tyr Tyr Gln Pro Leu Pro Leu Val Leu Arg Gly Tyr Gly Ala Gly Asn
 785 790 795 800
 Asp Val Thr Ala Ala Gly Val Phe Ala Asp Leu Leu Arg Thr Leu Ser
 805 810 815
 Trp Lys Leu Gly Val
 820

<210> 7019

<211> 250

<212> PRT

<213> Enterobacter cloacae

<400> 7019

Val Cys Tyr Arg Pro Gly Lys Thr Gly Lys Asn Asp Arg Arg Pro Ala
 1 5 10 15
 Val Ile Ile Leu Arg Asp Arg Val Pro Gly His Ala Ser Phe Pro Arg
 20 25 30
 Leu Cys Leu Asn Phe Leu Ser Ala Cys Ile Ile Pro Phe Asn Gln Tyr
 35 40 45
 Phe Leu Asn Gly Met Asp Met Asn Thr Leu Arg Ile Gly Leu Val Ser
 50 55 60
 Ile Ser Asp Arg Ala Ser Ser Gly Val Tyr Gln Asp Lys Gly Ile Pro
 65 70 75 80
 Ala Leu Glu Ala Trp Leu Gly Ser Ala Leu Thr Thr Pro Phe Glu Ile
 85 90 95
 Gln Thr Arg Leu Ile Pro Asp Glu Gln Pro Ile Ile Glu Gln Thr Leu
 100 105 110
 Cys Glu Leu Val Asp Glu Met Ser Cys His Leu Val Leu Thr Thr Gly
 115 120 125
 Gly Thr Gly Pro Ala Arg Arg Asp Val Thr Pro Asp Ala Thr Leu Ala
 130 135 140
 Ile Ala Asp Arg Glu Met Pro Gly Phe Gly Glu Gln Met Arg Gln Ile
 145 150 155 160
 Ser Leu His Phe Val Pro Thr Ala Ile Leu Ser Arg Gln Val Gly Val
 165 170 175
 Ile Arg Lys Gln Ala Leu Ile Leu Asn Leu Pro Gly Gln Pro Lys Ser
 180 185 190
 Ile Lys Glu Thr Leu Glu Gly Val Lys Ala Glu Asp Gly Ser Val Ile
 195 200 205
 Val His Gly Ile Phe Ala Ser Val Pro Tyr Cys Ile Gln Leu Leu Asp
 210 215 220
 Gly Pro Tyr Val Glu Thr Asp Gly Asn Val Val Ala Ala Phe Arg Pro
 225 230 235 240
 Lys Ser Ala Arg Arg Glu Thr Ile Ser
 245 250

<210> 7020

<211> 500

<212> PRT

<213> Enterobacter cloacae

<400> 7020

Val Thr Ala Cys Thr Ile Ser Gly Ser Ala Tyr Ile Phe Thr Leu Ala
 1 5 10 15
 Ser Thr Arg Gly Thr Leu Val Pro Asp Phe Phe Phe Phe Ile Asn Glu
 20 25 30
 Val Leu Trp Gly Ser Ile Met Ile Tyr Leu Leu Ser Gly Ala Gly Ile
 35 40 45
 Trp Phe Thr Trp Arg Ser Gly Leu Ile Gln Phe Arg Tyr Ile Arg Lys
 50 55 60
 Phe Gly Arg Ser Leu Lys Asn Ser Val Thr Pro Gln Pro Gly Gly Leu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ser | Phe | Gln | Ala | Leu | Cys | Thr | Ser | Leu | Ala | Ala | Arg | Val | Gly | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Asn | Leu | Ala | Gly | Val | Ala | Leu | Ala | Ile | Gly | Ala | Gly | Gly | Pro | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Val | Phe | Trp | Met | Trp | Val | Thr | Ala | Ile | Ile | Gly | Met | Ala | Thr | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Ala | Glu | Cys | Ser | Leu | Ala | Gln | Leu | Tyr | Lys | Glu | Lys | Asp | Gly | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Gln | Phe | Arg | Gly | Gly | Pro | Ala | Trp | Tyr | Met | Ala | Arg | Gly | Leu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Met | Arg | Trp | Met | Gly | Val | Leu | Phe | Ser | Ile | Phe | Leu | Leu | Ile | Ala | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Leu | Ile | Phe | Asn | Thr | Val | Gln | Ala | Asn | Ser | Val | Ala | His | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Phe | Ala | Phe | Asn | Cys | Pro | Glu | Trp | Leu | Thr | Gly | Gly | Ala | Leu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Leu | Thr | Leu | Leu | Thr | Ile | Val | Thr | Gly | Leu | Lys | Gly | Val | Ala | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Met | Gln | Trp | Leu | Val | Pro | Leu | Met | Ala | Leu | Leu | Trp | Val | Ser | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Ser | Leu | Met | Val | Cys | Ala | Ile | His | Ile | Asp | Glu | Val | Pro | Asn | Val | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Thr | Ile | Phe | Gln | Ser | Ala | Phe | Gly | Trp | Arg | Glu | Ala | Ala | Ser | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Leu | Gly | Tyr | Thr | Leu | Ser | Gln | Ala | Leu | Thr | Ala | Gly | Phe | Gln | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Met | Phe | Ser | Asn | Glu | Ala | Gly | Met | Gly | Ser | Thr | Pro | Asn | Ala | Ala |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Ala | Ala | Ala | Ala | Ser | Trp | Pro | Pro | His | Pro | Ala | Ala | Gln | Gly | Ile | Val |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Gln | Met | Ile | Gly | Val | Phe | Thr | Asp | Thr | Ile | Val | Ile | Cys | Ser | Ala | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Met | Ile | Met | Leu | Leu | Ala | Gly | Ala | Ala | Glu | Gln | Pro | Ser | Gly | Ser |
| | | | 340 | | | | 345 | | | | | | 350 | | |
| Thr | Ala | Gly | Ile | His | Trp | Val | Gln | Gln | Ala | Leu | Val | Ser | Leu | Val | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Trp | Gly | Ala | Gly | Leu | Val | Ala | Leu | Val | Val | Gly | Leu | Phe | Ala | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Ser | Ile | Ala | Val | Asn | Tyr | Met | Tyr | Ala | Glu | Asn | Asn | Leu | Ile | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | 400 | |
| Leu | Lys | Val | Asn | Ser | Cys | Leu | Thr | Arg | Asn | Val | Leu | Arg | Ala | Gly | Val |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Leu | Gly | Met | Val | Phe | Val | Gly | Ser | Leu | Leu | Gly | Met | Pro | Leu | Val | Trp |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Gln | Ile | Ala | Asp | Val | Ile | Met | Ala | Leu | Met | Ala | Ile | Thr | Asn | Leu | Thr |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Ala | Ile | Leu | Leu | Leu | Ser | Pro | Val | Val | Ala | Leu | Ile | Ala | Arg | Asp | Tyr |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Leu | Arg | Gln | Arg | Lys | Leu | Gly | Val | Gln | Pro | Val | Phe | Asp | Ala | Ser | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | 480 | |
| Tyr | Pro | Glu | Ile | Glu | Ser | Gln | Ile | Ala | Pro | Gly | Thr | Trp | Asp | Asp | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Pro | Arg | Gln | | | | | | | | | | | | | |

500

<210> 7021

<211> 280

<212> PRT

<213> Enterobacter cloacae

<400> 7021

Gln Leu Ser Ile Asn Ser Gly Arg Phe Phe Val Lys Val Ala Leu Asn
 1 5 10 15
 Phe Leu Gln Gly Leu Asp Met Leu Ile Leu Ile Ser Pro Ala Lys Thr
 20 25 30
 Leu Asp Tyr Gln Ser Pro Leu Ala Thr Glu Arg Tyr Thr Gln Pro Glu
 35 40 45
 Leu Leu Asp Tyr Ser Gln Gln Leu Ile His Glu Ala Arg Lys Leu Ser
 50 55 60
 Ala Pro Gln Ile Ala Ser Leu Met Ser Ile Ser Asp Lys Leu Ala Asp
 65 70 75 80
 Leu Asn Ala Thr Arg Phe His Glu Trp Gln Pro Asp Phe Thr Pro Ala
 85 90 95
 Asn Ala Arg Gln Ala Leu Leu Ala Phe Lys Gly Asp Val Tyr Thr Gly
 100 105 110
 Leu Gln Ala Glu Thr Phe Ser Glu Ala Asp Phe Asp Phe Ala Gln Gln
 115 120 125
 His Leu Arg Met Leu Ser Gly Leu Tyr Gly Val Leu Arg Pro Leu Asp
 130 135 140
 Leu Met Gln Pro Tyr Arg Leu Glu Met Gly Ile Arg Leu Glu Asn Ala
 145 150 155 160
 Lys Gly Lys Asp Leu Tyr Gln Phe Trp Gly Asp Val Ile Thr Asp Lys
 165 170 175
 Leu Asn Ala Ala Leu Gln Ala Gln Gly Asp Asn Val Val Ile Asn Leu
 180 185 190
 Ala Ser Asp Glu Tyr Phe Lys Ser Val Lys Pro Lys Lys Leu Asp Ala
 195 200 205
 Asp Ile Ile Lys Pro Val Phe Leu Asp Glu Lys Asn Gly Lys Phe Lys
 210 215 220
 Val Ile Ser Phe Tyr Ala Lys Lys Ala Arg Gly Leu Met Ser Arg Phe
 225 230 235 240
 Ile Ile Gln Asn Arg Leu Thr Lys Pro Glu Gln Leu Thr Gly Phe Asn
 245 250 255
 Ser Glu Gly Tyr Phe Phe Asp Glu Ala Ser Ser Gly Lys Asn Glu Leu
 260 265 270
 Val Phe Lys Arg His Glu Gln
 275 280

<210> 7022

<211> 188

<212> PRT

<213> Enterobacter cloacae

<400> 7022

His Pro Tyr Cys Leu Phe Asn Val Ser Cys Ala Arg Arg Leu Gly Leu
 1 5 10 15
 Gly Met Thr Thr Asn Leu Leu Ile Leu His Asn Ile Gly Met Phe Pro
 20 25 30
 Met Asp Gly Ile Ile Leu Pro Met Gly Ile Phe Tyr Gly Gly Ile Ala
 35 40 45
 Gln Ile Phe Ala Gly Leu Leu Glu Tyr Lys Lys Gly Asn Thr Phe Gly
 50 55 60
 Leu Thr Ala Phe Thr Ser Tyr Gly Ser Phe Trp Leu Thr Leu Val Ala
 65 70 75 80
 Ile Leu Leu Met Pro Lys Met Gly Leu Ala Glu Ala Ala Asn Ala His
 85 90 95
 Phe Leu Gly Val Tyr Leu Gly Leu Trp Gly Val Phe Thr Leu Phe Met
 100 105 110
 Phe Phe Gly Thr Leu Lys Ala Asn Arg Ala Leu Gln Phe Val Phe Leu
 115 120 125
 Ser Leu Thr Val Leu Phe Ala Leu Leu Ala Ile Gly His Leu Ala Asp

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 130 | | 135 | | 140 | | | | | | | | | | | |
| Asn | Glu | Gly | Ile | Val | His | Val | Ala | Gly | Trp | Val | Gly | Leu | Val | Cys | Gly |
| 145 | | 150 | | 155 | | | | | | 155 | | | | | 160 |
| Ala | Ser | Ala | Ile | Tyr | Leu | Ala | Met | Gly | Glu | Val | Leu | Asn | Glu | Gln | Phe |
| | | 165 | | 170 | | | | | 170 | | | | | 175 | |
| Asp | Arg | Thr | Ile | Leu | Pro | Ile | Gly | Glu | Lys | His | | | | | |
| | | 180 | | | | | | 185 | | | | | | | |

<210> 7023

<211> 302

<212> PRT

<213> Enterobacter cloacae

<400> 7023

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Leu | Phe | Ala | Ala | Ala | Leu | Ala | Val | Val | Gly | Phe | Cys | Lys | Thr |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ala | Ser | Ala | Val | Thr | Tyr | Pro | Leu | Pro | Thr | Asp | Gly | Ser | Arg | Leu | Val |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Gly | Glu | Asn | Gln | Val | Val | Thr | Val | Pro | Glu | Gly | Asn | Thr | Gln | Pro | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Tyr | Phe | Ala | Ala | Gln | Tyr | Gln | Leu | Gly | Leu | Ser | Asn | Met | Leu | Glu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Ala | Asn | Pro | Gly | Val | Asp | Pro | Tyr | Leu | Pro | Lys | Ala | Gly | Thr | Val | Leu |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Asn | Ile | Pro | Gln | Gln | Leu | Ile | Leu | Pro | Asp | Thr | Val | His | Glu | Gly | Ile |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Val | Ile | Asn | Ser | Ala | Glu | Met | Arg | Leu | Tyr | Tyr | Tyr | Pro | Lys | Gly | Thr |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Asn | Thr | Val | Ile | Val | Leu | Pro | Ile | Gly | Ile | Gly | Gln | Leu | Gly | Lys | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Pro | Leu | Asn | Trp | Thr | Thr | Lys | Val | Glu | Arg | Lys | Lys | Ala | Gly | Pro |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Thr | Trp | Thr | Pro | Thr | Ala | Lys | Met | His | Ala | Glu | Tyr | Ile | Ala | Ala | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Glu | Pro | Leu | Pro | Thr | Val | Val | Pro | Ala | Gly | Pro | Asp | Asn | Pro | Met | Gly |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Tyr | Ala | Leu | Tyr | Ile | Gly | Arg | Leu | Tyr | Ala | Ile | His | Gly | Thr | Asn |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ala | Asn | Phe | Gly | Ile | Gly | Leu | Arg | Val | Ser | His | Gly | Cys | Val | Arg | Leu |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Arg | Asn | Glu | Asp | Ile | Lys | Phe | Leu | Phe | Asp | Asn | Val | Pro | Val | Gly | Thr |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Arg | Val | Gln | Phe | Ile | Asn | Glu | Pro | Val | Lys | Ala | Thr | Ser | Glu | Pro | Asp |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Gly | Ser | Arg | Tyr | Ile | Glu | Val | His | Asn | Pro | Leu | Ser | Thr | Ser | Glu | Asp |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Gln | Ile | Asn | Asn | Glu | Ile | Val | Pro | Ile | Lys | Leu | Thr | Ser | Ala | Val | |
| | | 260 | | | | 265 | | | | | 270 | | | | |
| Gln | Ser | Val | Thr | Ser | Gln | Ala | Asp | Val | Asp | Thr | Thr | Ile | Val | Asp | Gln |
| | 275 | | | | | 280 | | | | | 285 | | | | |
| Ala | Ile | Gln | Asn | Arg | Ser | Gly | Met | Pro | Val | Arg | Leu | Asn | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | |

<210> 7024

<211> 336

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (328)

<400> 7024

Ser Met Asn Val Thr Leu Ile Asp Thr Leu Val Thr Arg Ser Arg Gly
 1 5 10 15
 Leu Ser Pro Trp Thr Gly Phe Tyr Phe Leu Gln Ser Leu Leu Ile Asn
 20 25 30
 Phe Ala Leu Gly Tyr Pro Phe Ser Leu Leu Tyr Ala Val Gly Phe Thr
 35 40 45
 Cys Ile Leu His Leu Leu Trp Arg Ser Ala Pro Arg Met Gln Lys Val
 50 55 60
 Leu Ile Gly Ile Cys Ser Leu Val Ala Ala Ala Tyr Phe Pro Phe Gly
 65 70 75 80
 Gln Ala Tyr Gly Ala Pro Asn Phe Asn Thr Leu Leu Ala Leu His Ser
 85 90 95
 Thr Asn Met Glu Glu Ser Thr Glu Ile Leu Thr Ile Phe Pro Trp Tyr
 100 105 110
 Asn Tyr Val Val Gly Leu Phe Ile Phe Ala Leu Gly Val Ile Ala Val
 115 120 125
 Arg Arg Lys Pro Val Gly Lys Lys Ala Trp Gly Lys Ile Glu Ser Leu
 130 135 140
 Cys Leu Ala Phe Ser Val Val Thr Phe Phe Val Ala Pro Val Gln Asn
 145 150 155 160
 Met Ala Trp Gly Gly Val Phe Lys Leu Lys Asp Thr Gly Tyr Pro Val
 165 170 175
 Phe Arg Phe Val Lys Asp Val Val Val Asn Asn Glu Glu Val Leu Asp
 180 185 190
 Glu Gln Ala Arg Met Ala Glu Leu Ser Thr Met Lys Asp Thr Trp Asn
 195 200 205
 Val Leu Ala Val Lys Pro Lys Tyr His Thr Tyr Val Val Val Ile Gly
 210 215 220
 Glu Ser Ala Arg Arg Asp Ala Leu Gly Ala Phe Gly Gly His Trp Asp
 225 230 235 240
 Asn Thr Pro Phe Ala Ser Ala Val Asn Gly Thr Leu Phe Thr Asp Tyr
 245 250 255
 Val Ala Ala Ser Gly Ser Thr Gln Lys Ser Leu Gly Leu Thr Leu Asn
 260 265 270
 Arg Val Val Asp Gly Lys Pro Gln Phe Gln Asp Asn Phe Val Thr Leu
 275 280 285
 Ala Asn Arg Ala Gly Phe Gln Thr Trp Trp Phe Ser Asn Gln Gly Gln
 290 295 300
 Ile Gly Glu Tyr Asp Thr Ala Ile Ala Ser Ile Lys Lys Arg Ala Asp
 305 310 315 320
 Glu Val His Phe Leu Phe Phe Xaa His Asp Ala Pro Asn Pro Arg Tyr
 325 330 335

<210> 7025

<211> 370

<212> PRT

<213> Enterobacter cloacae

<400> 7025

Met Asn Ile Pro Gly Leu Gln Ala Leu Lys Arg Asp Arg Phe Phe His
 1 5 10 15
 Leu Leu Leu Ile Thr Gly Val Gly Leu Ser Val Phe Val Pro Phe Thr
 20 25 30
 Pro His Thr Trp Pro Ala Ala Ile Asp Trp Arg Thr Ile Thr Leu
 35 40 45
 Ser Gly Leu Met Met Leu Thr Lys Gly Val Glu Leu Ser Gly Tyr Phe
 50 55 60
 Asp Val Leu Gly Arg Lys Met Val Arg Arg Phe Ala Thr Glu Arg Lys
 65 70 75 80

Leu Ala Leu Phe Met Val Phe Ser Ala Ala Leu Leu Ser Thr Phe Leu
 85 90 95
 Thr Asn Asp Val Ala Leu Phe Ile Val Val Pro Leu Thr Leu Thr Leu
 100 105 110
 Arg Lys Leu Cys Glu Ile Pro Val Thr Arg Leu Ile Ile Phe Glu Ala
 115 120 125
 Leu Ala Val Asn Ala Gly Ser Leu Leu Thr Pro Ile Gly Asn Pro Gln
 130 135 140
 Asn Ile Leu Leu Trp Gly Arg Ser Gly Leu Ser Phe Thr Ala Phe Thr
 145 150 155 160
 Gly Gln Met Ala Pro Leu Ala Leu Ala Ile Val Ala Ser Leu Leu Ala
 165 170 175
 Val Gly Trp Phe Ala Phe Pro Asn Lys Ser Leu Gln Tyr His Ser Gly
 180 185 190
 Thr Thr Gly Pro Gln Trp Gln Pro Arg Leu Val Trp Ser Cys Leu Gly
 195 200 205
 Leu Tyr Ile Val Phe Leu Ile Ala Leu Glu Leu Asn Gln Ala Leu Ala
 210 215 220
 Gly Ala Leu Leu Val Ala Cys Gly Phe Leu Phe Leu Ala Arg Arg Val
 225 230 235 240
 Leu Val Ser Val Asp Trp Thr Leu Leu Leu Val Phe Met Ala Met Phe
 245 250 255
 Ile Asp Val His Leu Leu Ile Gln Leu Pro Val Leu Gln Asn Val Leu
 260 265 270
 His Ser Val Gly Gly Leu Ser Gln Pro Gly Leu Trp Leu Thr Ala Ile
 275 280 285
 Gly Leu Ser Gln Val Ile Ser Asn Val Pro Ser Thr Ile Leu Leu Leu
 290 295 300
 Asn Tyr Val Pro Pro Thr Val Leu Leu Ala Trp Ala Val Asn Val Gly
 305 310 315 320
 Gly Phe Gly Leu Leu Pro Gly Ser Leu Ala Asn Leu Ile Ala Leu Arg
 325 330 335
 Met Ala Asn Asp Arg Arg Ile Trp Trp Arg Phe His Leu Trp Ser Ile
 340 345 350
 Pro Met Leu Leu Trp Ser Ala Ala Val Gly Phe Gly Leu Phe Leu Leu
 355 360 365
 Ile
 370

<210> 7026

<211> 517

<212> PRT

<213> Enterobacter cloacae

<400> 7026

Glu Arg Gly Glu Cys Arg Ser Thr Leu Met Ile His Arg Arg Leu His
 1 5 10 15
 Pro Leu Met Ile Met Met Leu Leu Val Gly Cys Ala Val Gly Pro Asp
 20 25 30
 Tyr Gln Gln Pro Ala Pro Pro Ala Thr Thr His Trp Asn Asp Lys Gly
 35 40 45
 Asp Ser Ala Val Lys Ser Gln Thr Ser Ser Ala Ala Thr Asn Pro Arg
 50 55 60
 Trp Trp Lys Thr Phe Gly Ser Pro Gln Leu Asp Ser Leu Ile Glu Arg
 65 70 75 80
 Ala Ile Ala Gly Asn Leu Thr Leu Gln Gln Thr Val Leu Arg Ile Ala
 85 90 95
 Gly Ala Arg Glu Gln Ile Asn Gln Ala Gly Gly Ala Phe Phe Pro Ser
 100 105 110
 Val Asn Gly Asn Val Gln Ala Thr Arg Gln Gln Leu Gly Leu Glu Gly
 115 120 125

Glu Leu Lys Ser His Gly Val Tyr Asp Gln Leu Asn Asn Val Asp Pro
 130 135 140
 Glu Leu Arg Gly Ala Leu Gly Pro Leu Thr Gln Pro Ile Asn Leu Tyr
 145 150 155 160
 Gln Gly Ser Phe Asp Ala Gln Trp Glu Ile Asp Leu Trp Gly Lys Val
 165 170 175
 Arg Arg Gln Val Glu Ala Ala Glu Ala Gln Gln Arg Ala Ala Ile Glu
 180 185 190
 Gln Arg Asn Asp Val Leu Val Ser Leu Glu Ala Glu Val Ala Arg Ala
 195 200 205
 Trp Leu Gln Leu Arg Gly Ala Gln Ser Ile Ile Ala Thr Leu Asn Thr
 210 215 220
 Gln Ile Glu Ser Ala Gln Gln Thr Leu Asp Leu Thr Glu Ser Arg Gln
 225 230 235 240
 Arg Gly Gly Leu Ser Pro Gln Met Asp Val Glu Asn Ala Arg Ala Gln
 245 250 255
 Leu Gly Asn Leu Glu Ala Gln Leu Pro Gln Tyr Gln Ala Gln Glu Arg
 260 265 270
 Gln Ala Met Asn Gly Leu Ala Ile Leu Leu Gly Lys Pro Pro Gly Ala
 275 280 285
 Leu Asp Ala Glu Leu Gln Ser Val Gln Pro Met Pro Ala Leu Pro Asp
 290 295 300
 Ile Val Gln Thr Gly Ile Pro Ser Thr Leu Ala Arg Arg Arg Pro Asp
 305 310 315 320
 Val Arg Glu Ala Glu Ala Asn Leu His Ala Ala Thr Ala Gln Ile Gly
 325 330 335
 Val Ser Val Ala Glu Leu Phe Pro Ser Phe Thr Leu Ser Gly Gln Phe
 340 345 350
 Gly Leu Arg Asn Ser Glu Ser Asn Trp Leu Thr Asp Trp Ser Ser His
 355 360 365
 Phe Tyr Ser Phe Gly Pro Gln Val Ser Ile Pro Ile Phe Gln Gly Gly
 370 375 380
 Arg Leu Val Ser Ser Val Lys Val Ala Arg Ala Gln Gln Gly Ala Ala
 385 390 395 400
 Val Leu Asp Tyr Arg Gln Thr Val Leu Thr Ala Leu Gly Asp Val Glu
 405 410 415
 Asn Ala Leu Val Ser Tyr Arg Thr Asp Gln Gln Arg Glu Ala Gly Leu
 420 425 430
 Ala Lys Thr Ile Asp Ala Leu Gln Asn Ala Phe Asp Leu Ala Ser Asp
 435 440 445
 Ser Tyr Arg Gln Gly Ile Ala Ser Phe Ile Asp Val Leu Asp Ala Gln
 450 455 460
 Arg Gln Leu Ala Gln Ala Glu Gln Gln Arg Ala Gln Ala Gln Val Gln
 465 470 475 480
 Ser Ala Leu Asp Leu Val Ala Leu Tyr Lys Ala Leu Gly Gly Gly Trp
 485 490 495
 Glu Pro Tyr Gln Gln Val Arg Leu Pro Asp Tyr Ser Val Phe Gly Asp
 500 505 510
 Ala Pro Arg Gly
 515

<210> 7027

<211> 242

<212> PRT

<213> Enterobacter cloacae

<400> 7027

Gly Arg Thr Met Ala Ala Lys Tyr Ile Thr Ile Ala Arg Glu Ile Lys
 1 5 10 15
 Lys Arg Ile Ile Ser Gln Gln Tyr Ala Ala Asn Glu Pro Leu Pro Asp
 20 25 30

Gln Phe Ala Leu Ala Ala Glu Phe Ser Thr Ser Arg Met Thr Ile Gln
 35 40 45
 Gln Ala Met Arg Gln Leu Ile Val Glu Gly Leu Val Tyr Thr Arg Gln
 50 55 60
 Gly Gln Gly Thr Phe Ile Arg Lys Asn Phe Leu Gln Leu Ser Gln Trp
 65 70 75 80
 Asp Leu Ser Gly Ser Asp Tyr Phe Gly Ala Thr Lys Thr Trp Glu His
 85 90 95
 Leu Gly Thr Val Ser Ser Gln Val Val His Phe Glu Leu Arg Phe Pro
 100 105 110
 Asn Glu Lys Glu Gln Ala Ser Leu Met Ile Asn Pro Asp Thr Pro Ile
 115 120 125
 Tyr Asp Phe Ile Arg Leu Arg Leu Leu Asn Gly Glu Pro Met Ser Leu
 130 135 140
 Asp Ala Thr Val Met Pro Leu Asn Leu Val Pro Gly Leu Asn Lys Thr
 145 150 155 160
 His Leu Glu Ser Ser Val Phe Arg Tyr Val Gln Glu Thr Leu Gly Leu
 165 170 175
 Lys Ile Met Gly Ser Tyr Arg Val Val Arg Ala Leu Lys Pro Ser Ala
 180 185 190
 Leu Asp Met Gln His Leu Val Cys Glu Pro Thr Asp Ser Val Leu Glu
 195 200 205
 Val Glu Gln Val Ile Tyr Leu Glu Asp Gly Thr Pro Leu Glu Tyr Ala
 210 215 220
 His Cys His Tyr Arg Tyr Asp His Gly Gly Ile Val Ile Val Asn Asn
 225 230 235 240
 Gly

<210> 7028

<211> 161

<212> PRT

<213> Enterobacter cloacae

<400> 7028

Gly Ser Thr Met Asn Arg Arg Ala Gly Lys Pro Thr Thr Lys Lys Thr
 1 5 10 15
 Thr Gln Leu Val Asn Val Glu Glu His Val Glu Gly Phe Arg Gln Val
 20 25 30
 Arg Glu Ala His Arg Arg Glu Leu Ile Asp Asp Tyr Val Glu Leu Ile
 35 40 45
 Ser Asp Leu Ile Arg Glu Val Gly Glu Ala Arg Gln Val Asp Met Ala
 50 55 60
 Ala Arg Leu Gly Val Ser Gln Pro Thr Val Ala Lys Met Leu Lys Arg
 65 70 75 80
 Leu Ala Ser Val Gly Leu Ile Glu Met Ile Pro Trp Arg Gly Val Phe
 85 90 95
 Leu Thr Ala Glu Gly Glu Lys Leu Ala Gln Glu Ser Arg Glu Arg His
 100 105 110
 Gln Ile Val Glu Asn Phe Leu Leu Val Leu Gly Val Ser Pro Glu Ile
 115 120 125
 Ala Arg Arg Asp Ala Glu Gly Met Glu His His Val Ser Glu Glu Thr
 130 135 140
 Leu Val Lys Phe Arg Glu Phe Thr Leu Lys Tyr Gly Pro Ser Ala Glu
 145 150 155 160

<210> 7029

<211> 530

<212> PRT

<213> Enterobacter cloacae

<400> 7029

Thr Glu Gly His Arg Gly Met Thr Asp His Ser His Asp Asn Trp Lys
 1 5 10 15
 Pro Ala Ser Asn Pro Trp Ala Val Ala Ile Val Val Thr Leu Ala Val
 20 25 30
 Phe Met Glu Ile Leu Asp Thr Thr Ile Val Asn Val Ala Leu Pro His
 35 40 45
 Val Ala Gly Ser Leu Ser Ala Ser Tyr Asp Glu Ser Thr Trp Val Leu
 50 55 60
 Thr Ser Tyr Leu Val Ala Asn Gly Ile Val Leu Pro Ile Ser Ala Phe
 65 70 75 80
 Leu Ser Arg Leu Phe Gly Arg Lys Gln Phe Phe Leu Ile Cys Ile Val
 85 90 95
 Met Phe Thr Ile Cys Ser Phe Leu Cys Gly Ile Ala Thr Glu Leu Trp
 100 105 110
 Gln Ile Ile Leu Phe Arg Val Met Gln Gly Phe Phe Gly Gly Gly Leu
 115 120 125
 Gln Pro Thr Gln Gln Ser Val Leu Leu Asp Tyr Phe Lys Pro Glu Asp
 130 135 140
 Arg Gly Lys Ala Phe Gly Leu Ser Ser Ile Ala Ile Val Ala Pro
 145 150 155 160
 Val Leu Gly Pro Thr Leu Gly Gly Trp Ile Thr Asp Asn Tyr Ser Trp
 165 170 175
 Arg Trp Val Phe Phe Ile Asn Ile Pro Val Gly Ile Val Thr Val Leu
 180 185 190
 Ala Ile Tyr Gln Leu Leu Glu Asp Pro Pro Trp Glu Lys Lys Ser Glu
 195 200 205
 Glu Lys Leu Thr Val Asp Trp Thr Gly Ile Gly Leu Ile Ala Leu Gly
 210 215 220
 Leu Gly Cys Leu Gln Val Met Leu Asp Arg Gly Glu Asp Asp Asp Trp
 225 230 235 240
 Phe Tyr Ser Asn Phe Ile Arg Thr Phe Ala Val Leu Thr Leu Val Gly
 245 250 255
 Ile Ile Gly Ala Ile Tyr Trp Leu Met Tyr Ala Arg Lys Pro Val Val
 260 265 270
 Asp Leu His Cys Met Lys Asp Arg Asn Phe Ala Ile Ser Ser Leu Leu
 275 280 285
 Met Ala Gly Met Ala Met Ile Leu Tyr Gly Ser Ser Val Val Ile Pro
 290 295 300
 Gln Leu Ala Gln Gln Asp Leu Gly Tyr Thr Ala Thr Trp Ser Gly Leu
 305 310 315 320
 Val Leu Ser Pro Gly Ala Val Leu Ile Val Leu Thr Ile Pro Leu Val
 325 330 335
 Leu Lys Leu Met Pro Val Val Gln Thr Arg Trp Ile Ile Ala Phe Gly
 340 345 350
 Phe Thr Cys Leu Ala Val Ser Phe Phe Trp Ser Arg Thr Leu Thr Pro
 355 360 365
 Asp Ile Asp Phe Glu Thr Leu Val Leu Phe Arg Ser Ala Gln Ser Ile
 370 375 380
 Gly Leu Gly Phe Leu Phe Val Pro Leu Thr Thr Ile Ala Phe Ile Ser
 385 390 395 400
 Ile Pro Arg Arg Leu Asn Ala Asp Ala Ala Leu Phe Thr Met Phe
 405 410 415
 Arg Asn Val Ala Gly Ser Ile Gly Ile Ser Leu Ser Thr Ala Ala Ile
 420 425 430
 Thr Glu Arg Ser Gln Ala His Ser Ala His Leu Ala Tyr His Ala Ser
 435 440 445
 Pro Phe Asn Glu Gln Phe Gln Leu Ala Ile Arg Glu Ser Ala Gln Ala
 450 455 460

Ile Gln Asn Phe Thr Thr Gln Val Gly Asp Pro Thr Gly Ile Ala Thr
 465 470 475 480
 Gly Arg Met Tyr Gln Thr Met Ile Glu Gln Ser Arg Phe Leu Ala Tyr
 485 490 495
 Ile Asp Val Phe Thr Ile Leu Ser Ala Val Ala Leu Leu Leu Ile Pro
 500 505 510
 Phe Cys Leu Leu Leu Ser Pro Val Lys Ser Glu Gly Ser Ala Gly Ala
 515 520 525
 His
 530

<210> 7030

<211> 466

<212> PRT

<213> Enterobacter cloacae

<400> 7030

Leu Val Ile Lys Gly Ala Thr Met Asn Lys Ser Leu Pro Ala Asn Phe
 1 5 10 15
 Leu Trp Gly Asn Ser Val Ser Ser Met Gln Thr Glu Gly Ala Trp Asn
 20 25 30
 Glu Gly Gly Lys Gly Met Ser Val Tyr Asp Ile Arg Glu Ala Gly Glu
 35 40 45
 Asn Ile Ser Asp Trp Lys Val Ala Thr Asp Ser Tyr His Arg Tyr Arg
 50 55 60
 Glu Asp Phe Asp Leu Met Gln Asp Leu Gly Met Asn Cys Tyr Arg Phe
 65 70 75 80
 Gln Ile Ser Trp Ser Arg Ile Cys Pro Gln Gly Asp Gly Glu Phe Asn
 85 90 95
 Asp Glu Gly Ile Ala Phe Tyr Asp Arg Phe Ile Asp Asp Leu Leu Ala
 100 105 110
 Arg Gly Ile Glu Pro Met Val Cys Leu Tyr His Phe Asp Met Pro Leu
 115 120 125
 Ala Leu Ala Gln Glu Tyr Asn Gly Phe Ile Asp Arg Arg Val Val Asp
 130 135 140
 Ala Phe Ile Arg Tyr Gly Lys Lys Met Ile Asp Cys Phe Ala Asp Arg
 145 150 155 160
 Val Lys Tyr Trp Leu Thr Phe Asn Glu Gln Asn Ile Phe His Met Pro
 165 170 175
 Glu Ala Phe Arg Ile Ser Gly Tyr Met Lys Gly Glu Gln Thr Leu Arg
 180 185 190
 Glu Leu Tyr Glu Leu Gln His His Ala Met Val Ala His Met Thr Leu
 195 200 205
 Thr Glu Tyr Leu His Gln Thr Lys Pro Gly Lys Leu Met Gly Gly Met
 210 215 220
 Leu Ala His Gln Leu Ile Tyr Pro Ala Thr Cys Lys Pro Arg Asp Ile
 225 230 235 240
 Phe Cys Ala Gln Gln Tyr Asp Glu Phe Leu Asn Gln Asn Leu Leu Arg
 245 250 255
 Val Phe Ala Gly Gln Gly Tyr Ser Pro Ala Val Met Ala Val Val Glu
 260 265 270
 Gln Glu Gly Phe Gly Asp Ile Tyr Arg Ala Asp Asp Leu Ala Leu Phe
 275 280 285
 Ala Arg Thr Lys Asn Asp Phe Met Ala Phe Ser Tyr Tyr Ala Ser Lys
 290 295 300
 Thr Leu Asp Ser Asp Ala Ile Pro Glu Gly Thr Pro Val Asn Tyr Tyr
 305 310 315 320
 Leu Leu His Gly Glu Lys Asn Asn Pro Tyr Leu Lys Ala Thr Glu Trp
 325 330 335
 Asn Trp Gln Ile Asp Pro Leu Gly Phe Arg Thr Ile Ile Thr Arg Tyr
 340 345 350

Ala Asn Asp Trp Arg Met Pro Val Phe Pro Ile Glu Asn Gly Ile Gly
 355 360 365
 Val Ile Glu Ser Trp Asp Gly Val Asn Pro Val Glu Asp Thr Tyr Arg
 370 375 380
 Ile Asp Tyr His Arg Ala His Ile Glu Ala Met Lys Ala Ala Ile Phe
 385 390 395 400
 Glu Asp Gly Ala Glu Val Met Gly Tyr Leu Gly Trp Gly Leu Ile Asp
 405 410 415
 Ile Leu Ser Ser Gln Gly Asp Met Arg Lys Arg Tyr Gly Val Val Tyr
 420 425 430
 Val Asn Arg Glu Asn His Asp Leu Lys Asp Leu Lys Arg Val Pro Lys
 435 440 445
 Lys Ser Tyr Ala Trp Leu Lys Gln Val Ile His Thr Asn Gly Arg Glu
 450 455 460
 Met
 465

<210> 7031

<211> 446

<212> PRT

<213> Enterobacter cloacae

<400> 7031

Trp Glu His Ser Ala Met Ser Glu Thr Lys Ile Thr Pro His Met Gln
 1 5 10 15
 Ser Phe Val Asp Lys Phe Val Glu Phe Ser Ala Arg Leu Ala Asn Gln
 20 25 30
 Val His Leu Arg Ser Leu Arg Asp Ala Phe Ala Thr Val Met Pro Ile
 35 40 45
 Phe Ile Leu Ala Gly Leu Ala Val Leu Val Asn Asn Val Val Phe Pro
 50 55 60
 Trp Ile Phe Ala Gly Asp Thr Leu Thr His Phe Lys Val Trp Gly Glu
 65 70 75 80
 Ala Ile Ile Asn Gly Thr Leu Asn Ile Ala Ala Leu Leu Leu Ala Pro
 85 90 95
 Met Ile Ala Trp Ser Leu Ala Arg Asn Lys Asp Phe Asp Asn Pro Val
 100 105 110
 Ser Ala Val Val Ile Ala Val Ser Ser Phe Ile Ile Met Met Pro Met
 115 120 125
 Arg Leu Gln Ile Thr Pro Val Gly Ser Glu Ala Thr Val Asn Ala Thr
 130 135 140
 Gln Val Leu Thr Phe Ala Asn Ile Gly Ser Thr Gly Ile Phe Ala Gly
 145 150 155 160
 Val Leu Ile Gly Leu Leu Ser Thr Glu Val Phe Ile Ala Ile Ser Arg
 165 170 175
 Leu Lys Ala Leu His Ile Ser Leu Gly Glu Asn Val Pro Pro Ala Val
 180 185 190
 Ser Lys Ser Phe Thr Ala Leu Ile Pro Thr Ile Leu Thr Leu Ser Leu
 195 200 205
 Phe Ala Val Leu Ala Ala Ile Leu Ala Asn Val Leu His Thr Asp Leu
 210 215 220
 Ile His Leu Ile Thr Thr Phe Ile Gln Gln Pro Leu Arg Leu Ile Asn
 225 230 235 240
 Thr Ser Leu Pro Gly Thr Ile Phe Ile Tyr Ser Phe Gly Asn Phe Leu
 245 250 255
 Phe Thr Leu Gly Ile His Gln Ser Val Val Asn Ser Val Val Leu Glu
 260 265 270
 Pro Phe Leu Leu Ile Asn Thr Asn Glu Asn Met Leu Ala Phe Ala Asn
 275 280 285
 Gly Gln Pro Ile Pro His Ile Ile Asn Asn Ile Phe Val Pro Thr Phe
 290 295 300

Gly Met Val Gly Gly Thr Gly Ser Thr Ile Ser Leu Leu Ile Ala Ile
 305 310 315 320
 Phe Ile Phe Ser Arg Gln Lys Ser Ala Lys Gln Val Ala Arg Leu Ser
 325 330 335
 Leu Ala Pro Gly Leu Phe Asn Ile Asn Glu Pro Val Ile Phe Gly Leu
 340 345 350
 Pro Ile Val Phe Asn Leu Pro Leu Met Ile Pro Phe Val Leu Leu Pro
 355 360 365
 Ala Ile Gly Ile Tyr Phe Ala Trp Leu Cys Thr Thr Leu Gly Phe Met
 370 375 380
 Ser Arg Cys Val Val Met Ile Pro Trp Thr Thr Pro Pro Ile Leu Ser
 385 390 395 400
 Ala Trp Leu Ala Thr Ala Gly Asp Trp Arg Ala Val Val Val Gln Leu
 405 410 415
 Ala Ile Ile Val Phe Gly Val Phe Phe Tyr Leu Pro Phe Leu Lys Val
 420 425 430
 Ala Glu Arg Val Ala Leu Lys Asn Ser Gly Thr Glu His
 435 440 445

<210> 7032

<211> 366

<212> PRT

<213> Enterobacter cloacae

<400> 7032

Thr Met Ala Glu Asp Gln Asn Pro Pro Ala Asp Glu Gln Asp Gln Asn
 1 5 10 15
 Asn Asn Glu Arg Lys Arg Pro Gly Lys Lys Pro Leu Ile Ile Leu Gly
 20 25 30
 Ile Val Val Ile Val Met Val Ile Val Ala Leu Val Trp Trp Phe Leu
 35 40 45
 Thr Arg Asn Glu Glu Thr Thr Asp Asp Ala Phe Thr Asp Gly Asp Val
 50 55 60
 Val Thr Ile Ala Pro Lys Thr Ala Gly Tyr Val Thr Glu Leu Arg Val
 65 70 75 80
 Arg Asp Asn Gln Arg Val Lys Lys Gly Asp Val Leu Val Val Ile Asp
 85 90 95
 Pro Arg Asp Thr Thr Ala Gln Arg Asp Gln Ala Gln Ala Gln Leu Gly
 100 105 110
 Leu Ala Leu Ala Gln Leu His Gln Ala Gln Ala Gln Leu Ala Leu Ser
 115 120 125
 Lys Val Gln Tyr Pro Ala Gln Arg Asp Glu Ala Lys Ala Gln Val Leu
 130 135 140
 Lys Ala Gln Ala Asp Met Ala Asn Ala Gln Ala Glu Tyr Arg Arg Gln
 145 150 155 160
 Arg Gly Val Asp Pro Arg Ala Thr Thr Gln Ser Ile Asp Ala Ala
 165 170 175
 Asn Ala Gln Leu Arg Ser Ala Gln Ala Gly Leu Ala Ser Ala Gln Ala
 180 185 190
 Gln Leu Glu Val Ala Glu Gln Val Gln Leu Gln Ile Arg Gln Gln Glu
 195 200 205
 Thr Asn Val Glu Ala Arg Glu Arg Gln Val Asp Gln Ala Arg Ala Gln
 210 215 220
 Leu Glu Thr Ala Asn Leu Asn Leu Ser Tyr Thr Glu Val Arg Ala Pro
 225 230 235 240
 Phe Asp Gly Phe Val Thr Lys Arg Asn Val Gln Pro Gly Thr Leu Val
 245 250 255
 Gln Ala Gly Thr Ala Leu Phe Ser Leu Val Ser Pro Asn Val Trp Val
 260 265 270
 Val Ala Asn Phe Lys Glu Ser Gln Leu Glu Arg Met Lys Pro Gly Asp
 275 280 285

Lys Val Thr Val Ser Val Asp Ala Trp Pro Asp Met Glu Leu Glu Gly
 290 295 300
 His Ile Asp Ser Ile Gln Gly Ser Gly Ser Arg Phe Ser Ala Phe
 305 310 315 320
 Pro Ser Glu Asn Ala Thr Gly Asn Phe Val Lys Ile Val Gln Arg Val
 325 330 335
 Pro Val Lys Ile Val Ile Asp Lys Gly Leu Asp Pro Asn Lys Pro Leu
 340 345 350
 Pro Leu Gly Leu Ser Val Glu Pro Lys Val Thr Val Glu
 355 360 365

<210> 7033

<211> 354

<212> PRT

<213> Enterobacter cloacae

<400> 7033

Gly Val Ser Cys Ala Asp Ala Ser Thr Ser Lys Asn Gln Asn Phe Ala
 1 5 10 15
 Thr Phe Ile Glu Arg Leu Phe Arg Asp Asn Thr Met Thr Lys Tyr Arg
 20 25 30
 Leu Ser Asn Glu Thr Arg Leu Trp Arg Trp Gln Asp Gly Ser Thr Pro
 35 40 45
 Cys Thr Thr Pro Leu Arg Gln Ile Ile Ala Val Lys Asp Phe Asn Asp
 50 55 60
 Val Thr Ser Gly Thr Lys Gly Gly Trp Val Glu Asp Glu His Ala Leu
 65 70 75 80
 Ala Gln Asp Gly Asp Cys Trp Val Tyr Asp Glu Asn Ser Val Val Phe
 85 90 95
 Ala Gly Ala Arg Ile Ser Gly Asn Ala Arg Leu Thr Gln Pro Cys Ile
 100 105 110
 Val Ser His Arg Ala His Val Gly Gly Asn Gly Trp Leu Asp Ala Ala
 115 120 125
 Glu Val Ser His Gly Ala Val Ile Ser Asp Asn Val Thr Ile Gln His
 130 135 140
 Ser Thr Val Arg Gly Glu Cys Arg Ile Ala Gly Asp Ala Arg Val Leu
 145 150 155 160
 His Asn Ser Leu Val Ile Ala Ala Lys Gly Leu Thr Pro Asp Arg Glu
 165 170 175
 Gln Ile Leu Gln Ile Tyr Asp Arg Ala Thr Val Ser Gln Ser Arg Ile
 180 185 190
 Val His Gln Ala Gln Ile Tyr Gly Asp Ala Met Val Thr Trp Ala Phe
 195 200 205
 Val Glu His Arg Ala Glu Val Phe Asp Arg Ala Ile Leu Glu Gly Asn
 210 215 220
 Ala Leu Asn Asn Val Trp Val Cys Asp Cys Ala Lys Val Tyr Gly Asn
 225 230 235 240
 Ala Arg Leu Leu Ala Gly Leu Glu Asp Asp Ala Ile Pro Thr Val Arg
 245 250 255
 Tyr Ser Ser Gln Val Ala Glu Asn Ala Leu Val Glu Gly Asn Cys Val
 260 265 270
 Ile Lys His His Val Leu Ile Gly Gly Glu Ala Trp Leu Arg Gly Gly
 275 280 285
 Pro Ile Leu Ile Asp Asp Lys Val Val Ile Gln Gly Arg Ala Arg Ile
 290 295 300
 Ser Gly Asp Val Leu Ile Glu His Gln Val Glu Ile Thr Asp Asp Ala
 305 310 315 320
 Val Ile Glu Ala Leu Glu Gly Glu Ser Ile His Val Arg Gly Ala Lys
 325 330 335
 Val Ile Asn Gly Asp Thr Arg Ile Thr Arg Thr Pro Leu Leu Gly Ala
 340 345 350

Leu

<210> 7034

<211> 418

<212> PRT

<213> Enterobacter cloacae

<400> 7034

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Asn | Thr | Glu | Gly | Asn | Thr | Met | Gly | Ser | Glu | Leu | Ser | Arg | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Thr | Gln | Arg | Phe | Phe | Arg | Tyr | Leu | Ala | Ile | Thr | Ser | Gln | Ser | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Pro | Lys | Val | Lys | Thr | Leu | Pro | Ser | Thr | Pro | Gly | Gln | His | Asp | Met | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Glu | Leu | Ala | Lys | Glu | Leu | Lys | Thr | Leu | Gly | Leu | Asp | Asp | Ile | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Asp | Glu | Phe | Ala | Thr | Val | Thr | Ala | Val | Lys | Lys | Gly | Asn | Val | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Ala | Pro | Arg | Ile | Gly | Phe | Ile | Thr | His | Ile | Asp | Thr | Val | Asp | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Leu | Ser | Pro | Asp | Ile | His | Pro | Gln | Ile | Leu | Thr | Phe | Thr | Gly | Asp |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Asp | Leu | Cys | Leu | Asn | Lys | Glu | Lys | Asp | Ile | Trp | Leu | Arg | Val | Lys | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Pro | Glu | Ile | Leu | Ala | Tyr | Pro | Asp | Glu | Glu | Ile | Ile | Phe | Ser | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Thr | Ser | Val | Leu | Gly | Ala | Asp | Asn | Lys | Ala | Ala | Val | Thr | Val | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Met | Thr | Val | Leu | Glu | Asn | Leu | Thr | Ala | Glu | His | Asn | His | Gly | Asp | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Val | Ala | Phe | Val | Pro | Asp | Glu | Glu | Ile | Gly | Leu | Cys | Gly | Ala | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Asp | Leu | Lys | Arg | Phe | Asp | Val | Asp | Phe | Ala | Trp | Thr | Ile | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Cys | Cys | Glu | Leu | Gly | Glu | Ile | Val | Tyr | Glu | Asn | Phe | Asn | Ala | Ala | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Glu | Ile | Arg | Phe | Thr | Gly | Val | Thr | Ala | His | Pro | Met | Ser | Ala | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Val | Leu | Val | Asn | Pro | Leu | Leu | Met | Ala | Thr | Asp | Phe | Ile | Ser | His |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Phe | Asp | Arg | Gln | Gln | Thr | Pro | Glu | Cys | Thr | Glu | Gly | Arg | Glu | Gly | Tyr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Trp | Phe | Asn | Gly | Ile | Gln | Ala | Gly | Gln | Asn | Glu | Ala | Ile | Leu | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Asn | Ile | Arg | Asp | Phe | Asp | Lys | Asp | Gly | Phe | Ala | Ala | Arg | Lys | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Ile | Ala | Asp | Val | Ala | Ala | Gln | Ile | Ala | Ala | Gln | His | Pro | Thr | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Val | Glu | Tyr | Arg | Ile | Glu | Asp | Thr | Tyr | Ser | Asn | Ile | Ser | Asn | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Gly | Glu | Asp | Arg | Arg | Ala | Ile | Asp | Leu | Met | Phe | Glu | Ala | Met | Glu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Leu | Gly | Ile | Thr | Pro | Lys | Pro | Ile | Pro | Met | Arg | Gly | Gly | Thr | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Ala | Ala | Leu | Ser | Ala | Lys | Gly | Leu | Leu | Thr | Pro | Asn | Phe | Phe | Thr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Ala | His | Asn | Phe | His | Ser | Lys | Phe | Glu | Phe | Leu | Pro | Leu | Ser | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Phe | Glu | Ala | Ser | Cys | Arg | Thr | Ala | Leu | Gln | Leu | Cys | Leu | Leu | Ala | Ala |
| | | | | 405 | | | | | 410 | | | | | 415 | |

Arg

<210> 7035

<211> 282

<212> PRT

<213> Enterobacter cloacae

<400> 7035

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Asp Met Ser Arg Arg Ser Phe Pro Leu Asn Ala Val Glu Thr Phe Ile
1      5      10      15
Val Thr Ala Arg His Leu Asn Leu Thr His Ala Ala Lys Glu Leu Cys
20      25      30
Leu Thr Gln Gly Ala Val Ser Arg Lys Ile Ala Ser Leu Glu Ser Trp
35      40      45
Phe Gly Phe Pro Leu Phe Glu Arg His Ala Arg Gly Leu Arg Leu Ser
50      55      60
Ser Gln Gly Ser Ala Leu Leu Pro Glu Leu Gln Ser Ala Phe Glu His
65      70      75      80
Leu Leu Asn Val Ala Glu Gln Ala Arg Thr His Gln Thr Val Ile Arg
85      90      95
Leu Lys Ala Pro Thr Cys Ala Met Arg Trp Leu Val Pro Arg Leu Leu
100     105     110
Gln Val Glu Arg Glu Gln Pro Glu Leu Gln Ile Ala Leu Thr Thr Thr
115     120     125
Thr Asp His Asn Val Asn Phe Lys Thr Glu Ser Cys Asp Ala Ala Ile
130     135     140
Val Phe Gly Thr His Met Ser Ala Gly Asp Leu Leu Phe Glu Glu Ala
145     150     155     160
Leu Thr Pro Val Met Ser Pro Leu Arg Ala Gly Ser Ala Leu Glu Ala
165     170     175
Leu Thr Phe Leu His Pro Thr Arg Asp Lys Thr Asp Trp Thr Leu Trp
180     185     190
Leu Ala Lys Gln Pro Gly Pro Pro Pro Ala Met Leu Lys Asn Gln His
195     200     205
Phe Glu Thr Met Asp Leu Ala Ile Thr Ala Ala Ile Gln Gly Leu Gly
210     215     220
Ile Ala Ile Ala Asp Glu Thr Leu Val Glu Glu Asp Val Arg Ala Gly
225     230     235     240
Arg Leu Met Arg Pro Phe Asp Thr Ser Ile Lys Thr Gly Ala Ser Tyr
245     250     255
Arg Leu Val Leu Arg Asp Ala Pro Gly Pro Glu Asn Gly Leu Asp Ala
260     265     270
Phe Arg Ala Cys Leu Leu Ser Arg Gly
275     280

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<210> 7036

<211> 508

<212> PRT

<213> Enterobacter cloacae

<400> 7036

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Trp Lys Lys Lys Val Gly Met Glu Asn Pro Ser Ala Pro Val Val Glu
1      5      10      15
Thr Arg Gln Gly Ala Leu Ile Gly Phe Thr Glu Gly Asp Thr His Val
20      25      30
Trp Cys Gly Ile Pro Tyr Ala Ala Pro Pro Val Gly Pro Trp Arg Trp
35      40      45
Arg Ser Pro Arg Pro Pro Ala Arg Trp Asp Gly Val Arg Pro Ala Thr
50      55      60
Ala Phe Ser Ala Ser Ser Trp Gln Ser Ser Glu Ser Cys Gln Glu Leu

```


| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Gly | Gly | Gly | Asp | Pro | Gly | Gln | Phe | Ser | Glu | Asp | Cys | Leu | Tyr | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 |
| Val | Trp | Ser | Pro | Val | Ala | Arg | Ala | Ala | Pro | Leu | Pro | Val | Met | Val |
| | | | 100 | | | | | 105 | | | | | 110 | Trp |
| Leu | His | Gly | Gly | Gly | Phe | Thr | Leu | Gly | Ala | Gly | Gly | Leu | Pro | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | Tyr |
| Asn | Gly | Arg | Ala | Leu | Ala | Lys | Arg | Gly | Thr | Val | Val | Val | Thr | Ile |
| | | 130 | | | | 135 | | | | | 140 | | | Asn |
| Tyr | Arg | Leu | Gly | His | Leu | Gly | Phe | Phe | Ala | His | Pro | Ala | Leu | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | Gly |
| Glu | Glu | Glu | Arg | Val | Val | His | Asn | Phe | Ala | Leu | Leu | Asp | Gln | Ile |
| | | | | 165 | | | | | 170 | | | | | Gln |
| Ala | Leu | Glu | Trp | Val | Arg | Asp | Asn | Ile | Ala | Ala | Phe | Gly | Gly | Asp |
| | | | 180 | | | | 185 | | | | | | 190 | Pro |
| Glu | Asn | Ile | Thr | Val | Phe | Gly | Glu | Ser | Ala | Gly | Ala | Arg | Ser | Val |
| | | 195 | | | | | 200 | | | | | 205 | | Leu |
| Ser | Leu | Met | Ala | Ser | Pro | Leu | Ala | Gly | Gly | Leu | Phe | His | Lys | Ala |
| | | 210 | | | | 215 | | | | | 220 | | | Ile |
| Val | Gln | Ser | Gly | Tyr | Thr | Leu | Pro | Asp | Thr | Pro | Arg | Glu | Gln | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | Met |
| His | Lys | Gly | Glu | Ala | Ile | Ala | Ala | His | Phe | Gly | Leu | His | Asn | Ala |
| | | | | 245 | | | | | 250 | | | | | Thr |
| Ala | Glu | Gln | Leu | Arg | Ala | Ile | Pro | Pro | Glu | Ala | Phe | Trp | Pro | Leu |
| | | | 260 | | | | 265 | | | | | | 270 | Thr |
| Ser | Pro | Leu | Asn | Ile | Ala | Pro | Ala | Pro | Ile | Val | Gly | Asp | Cys | Val |
| | | 275 | | | | 280 | | | | | | 285 | | Leu |
| Pro | Glu | Ala | Met | Leu | Asp | Val | Phe | Phe | Ala | Ala | Arg | Gln | His | Pro |
| | | 290 | | | | 295 | | | | | 300 | | | Val |
| Pro | Val | Met | Ile | Gly | Ser | Asn | Ser | Asp | Glu | Ala | Ser | Val | Met | Ser |
| 305 | | | | 310 | | | | | | 315 | | | | Val |
| Phe | Gly | Val | Asp | Leu | Ala | Gly | Gln | Ile | Gln | Lys | Leu | Arg | Arg | Glu |
| | | | 325 | | | | | | 330 | | | | | Arg |
| Arg | Phe | Gly | Leu | Gly | Leu | Ile | Lys | Leu | Leu | Tyr | Pro | Gly | Val | Lys |
| | | | 340 | | | | 345 | | | | | | 350 | Gly |
| Asp | Glu | Glu | Leu | Gly | Arg | Gln | Val | Cys | Arg | Asp | Met | Ala | Phe | Thr |
| | | 355 | | | | 360 | | | | | 365 | | | Thr |
| Met | Gly | Tyr | Val | Val | Met | Gln | Ala | Gln | Gln | Arg | Ala | Gly | Gly | Leu |
| | | 370 | | | | 375 | | | | 380 | | | | Cys |
| Trp | Arg | Tyr | Trp | Phe | Asp | Tyr | Val | Ala | Glu | Ala | Glu | His | Ala | Thr |
| 385 | | | | | 390 | | | | | 395 | | | | Tyr |
| Ile | Asn | Gly | Ala | Trp | His | Gly | Asn | Glu | Val | Pro | Tyr | Val | Phe | Asp |
| | | | 405 | | | | | | 410 | | | | | Thr |
| Leu | Gly | Gln | Val | Glu | Pro | Ser | Arg | Gln | Tyr | Val | Asn | Glu | Arg | Asp |
| | | | 420 | | | | | 425 | | | | | 430 | Leu |
| Ala | Phe | Ala | Ala | Gln | Val | Ala | Asp | Tyr | Trp | Val | Ser | Phe | Ala | Arg |
| | | 435 | | | | 440 | | | | | | 445 | | Asp |
| Ala | Gly | Ala | Arg | Asp | Ser | Leu | Ala | Gly | Pro | Thr | Arg | Trp | Pro | Ala |
| | | 450 | | | | 455 | | | | | 460 | | | Cys |
| Arg | Lys | Gly | Arg | Asp | Val | Leu | Leu | Arg | Ile | Gly | Val | Asn | Lys | His |
| 465 | | | | | 470 | | | | | 475 | | | | Ala |
| Gly | Phe | Arg | Leu | Glu | Asn | Arg | Phe | Met | Arg | Ala | Arg | Met | Ser | Leu |
| | | | 485 | | | | | | 490 | | | | | Phe |
| Lys | Arg | Val | Met | Lys | His | His | Val | Ser | Leu | Asp | | | | |
| | | | 500 | | | | | 505 | | | | | | |

<210> 7037

<211> 400

<212> PRT

<213> Enterobacter, cloacae

<400> 7037

Leu Cys Ile His His Glu Lys Gly Gln Arg Met Thr Leu Lys Thr Pro
 1 5 10 15
 Val Gln Thr Arg Ser Lys Leu Pro Asp Val Gly Thr Thr Ile Phe Thr
 20 25 30
 Val Ile Gly Gln Leu Ser Ala Arg His Asn Ala Ile Asn Leu Ser Gln
 35 40 45
 Gly Ala Pro Asn Phe Ser Cys Asp Pro Lys Leu Ile Ser Gly Val Thr
 50 55 60
 Arg Ala Met Glu Ala Gly Tyr Asn Gln Tyr Ala Ser Met Thr Gly Leu
 65 70 75 80
 Gln Pro Leu Arg Glu Arg Ile Ala Asp Lys Ile Ala Thr Leu Tyr Gly
 85 90 95
 Thr His Tyr Asp Pro Ala Ser Glu Val Leu Val Thr Ala Ser Ala Ser
 100 105 110
 Glu Gly Leu Tyr Ser Ala Ile Ser Gly Leu Val His Pro Gly Asp Glu
 115 120 125
 Val Ile Tyr Phe Glu Pro Ser Phe Asp Ser Tyr Ala Pro Ile Val Arg
 130 135 140
 Leu Gln Gly Ala Thr Pro Ile Ala Ile Lys Leu Thr Val Pro Asp Phe
 145 150 155 160
 Ala Val Asn Trp Asp Glu Val Arg Ala Ala Ile Thr Pro Arg Thr Arg
 165 170 175
 Met Ile Ile Val Asn Thr Pro His Asn Pro Ser Gly Gln Val Phe Ser
 180 185 190
 Ala Ala Asp Leu His Gln Leu Ala Ala Leu Thr Arg His Thr Asp Ile
 195 200 205
 Ile Ile Leu Ser Asp Glu Val Tyr Glu His Val Val Phe Asp Gly Glu
 210 215 220
 Pro His His Gly Met Ala Thr His Pro Gln Leu Ala Glu Arg Ser Val
 225 230 235 240
 Ile Ile Ser Ser Phe Gly Lys Thr Tyr His Val Thr Gly Trp Arg Val
 245 250 255
 Gly Tyr Cys Val Ala Pro Ala Glu Leu Met Asp Glu Ile Cys Lys Val
 260 265 270
 His Gln Phe Leu Met Phe Ser Ala Asp Thr Pro Met Gln Tyr Ala Phe
 275 280 285
 Ala Glu His Met Thr Asp Pro Gln Thr Trp Leu Ser Leu Ala Ala Phe
 290 295 300
 Tyr Gln Arg Lys Arg Asp Leu Leu Gln Ser Leu Leu Ala Asp Ser Pro
 305 310 315 320
 Phe Arg Leu Leu Pro Ser Ala Gly Ser Phe Phe Leu Leu Ala Asp Tyr
 325 330 335
 Ser Gly Phe Ser Asp Glu Arg Asp Ser Glu Met Val Lys Arg Leu Ile
 340 345 350
 Val Glu Tyr Gly Val Ala Thr Ile Pro Leu Ser Ala Phe Tyr Ala Asp
 355 360 365
 Gly Thr Asp Asn Lys Leu Ile Arg Leu Ser Phe Ala Lys Asp Glu Ala
 370 375 380
 Thr Leu Arg Ala Gly Ala Gln Ala Leu Cys Arg Val Thr Pro Arg
 385 390 395 400

<210> 7038

<211> 582

<212> PRT

<213> Enterobacter cloacae

<400> 7038

Pro Phe Leu Phe Arg Leu Cys Val Leu Ser Cys Arg His Phe Ala Ala
 1 5 10 15
 Arg Glu Thr His Ser His Asp His Lys Asp Val Phe Ser Gly Met Asn

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|
| | | | 20 | | | | 25 | | | | 30 | | | | |
| Arg | Arg | Arg | Phe | Leu | Lys | Gly | Ser | Leu | Ala | Met | Ala | Ala | Leu | Ser | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Ser | Gly | Leu | Ala | Ser | Leu | Phe | Ser | Gln | Ala | Ala | Tyr | Ala | Ala | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Asp | Ile | Ala | Asp | Gly | Gln | Ser | Arg | Arg | Phe | Asp | Phe | Ser | Val | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Gln | Ser | Met | Ala | His | Asp | Leu | Ala | Lys | Thr | Ala | Trp | Gly | Gly | Ala | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Pro | Leu | Pro | Glu | Thr | Leu | Ala | Thr | Met | Thr | Pro | Gln | Ala | Tyr | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ile | Arg | Tyr | Asp | Glu | Lys | Gln | Ser | Leu | Trp | Asn | Asn | Ile | Glu | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Arg | Gln | Leu | Asp | Ala | Gln | Phe | Phe | His | Met | Gly | Met | Gly | Phe | Arg | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Val | Arg | Met | Phe | Ser | Leu | Asp | Gln | Thr | Thr | Ser | Gln | Ala | Arg | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | His | Phe | Arg | Pro | Glu | Leu | Phe | Ser | Tyr | Gly | Asp | Thr | Gly | Val | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Lys | Gln | Leu | Glu | Gly | Gln | Ser | Asp | Leu | Gly | Phe | Ala | Gly | Phe | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Phe | Lys | Ala | Pro | Glu | Leu | Ala | Arg | Arg | Asp | Ile | Val | Ser | Phe | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Gly | Ala | Ser | Tyr | Phe | Arg | Ala | Val | Asp | Asp | Thr | Tyr | Gln | Tyr | Gly | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Ala | Arg | Gly | Leu | Ala | Val | Asp | Thr | Phe | Thr | Asp | Thr | Pro | Glu | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Pro | Asp | Phe | Thr | Ser | Phe | Trp | Phe | Glu | Thr | Val | Lys | Pro | Gly | Asp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Thr | Phe | Thr | Val | Tyr | Ala | Leu | Leu | Asp | Ser | Pro | Ser | Ile | Thr | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Tyr | Lys | Phe | Val | Ile | His | Cys | Glu | Lys | Ser | Gln | Val | Ile | Met | Asp |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Val | Glu | Asn | His | Leu | Tyr | Ala | Arg | Lys | Asp | Ile | Lys | Gln | Leu | Gly | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Pro | Met | Thr | Ser | Met | Phe | Ser | Cys | Gly | Asn | Asn | Glu | Arg | Arg | Met |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Cys | Asp | Thr | Ile | His | Pro | Gln | Ile | His | Asp | Ser | Asp | Arg | Leu | Ala | Met |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Trp | Arg | Gly | Asn | Gly | Glu | Trp | Ile | Cys | Arg | Pro | Leu | Asn | Asn | Pro | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Leu | Gln | Phe | Asn | Ala | Tyr | Leu | Asp | Lys | Asn | Pro | Lys | Gly | Phe | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Leu | Gln | Leu | Asp | Arg | Asp | Phe | Ser | His | Tyr | Gln | Asp | Val | Met | Gly |
| | 370 | | | | | 375 | | | | | 380</ | | | | |

Ala Lys Gln Val Glu Ile Leu Tyr Val Glu Pro Phe Asp Gly Tyr Arg
 515 520 525
 Ile Leu Phe Asp Trp Tyr Pro Thr Ser Asp Ser Thr Glu Pro Val Asp
 530 535 540
 Met Arg Leu Phe Leu Arg Cys Gln Gly Asp Ala Ile Ser Glu Thr Trp
 545 550 555 560
 Leu Tyr Gln Tyr Phe Pro Pro Ala Pro Asp Lys Arg Asn Tyr Val Asp
 565 570 575
 Asp Arg Ile Met Arg
 580

<210> 7039

<211> 215

<212> PRT

<213> Enterobacter cloacae

<400> 7039

Ser Leu Trp Val Cys Ala Gly Trp Arg Leu Arg Leu Thr Arg Pro Ala
 1 5 10 15
 Leu Asp Ala Phe Val Gly Arg Val Ser Val Ser Ala Thr Arg Gln Leu
 20 25 30
 Arg Gly Thr Met Ser Ser Glu Ile Pro Val Asn Gln Glu Ile Glu
 35 40 45
 Leu Arg Ala Val Glu Glu Arg Tyr Thr Thr Asp Leu His Asn Leu Val
 50 55 60
 Ile Lys Asn Lys Thr Trp Leu Gln Thr Ala Phe Asp Trp Ala Gln His
 65 70 75 80
 Val Gly Ser Glu Glu Asp Thr Arg Arg Asn Val Gln Ser Asn Gln Met
 85 90 95
 Leu His Gln Arg Gly Tyr Ala Lys Met Phe Leu Ile Phe Met Lys Asp
 100 105 110
 Glu Leu Val Gly Val Leu Ser Phe Asn Ala Ile Glu Pro Ala Asn Lys
 115 120 125
 Thr Gly Tyr Ile Gly Tyr Trp Leu Asp Glu Ala His Gln Gly Gln Gly
 130 135 140
 Ile Leu Ser Gln Ala Leu Gln Ala Phe Met Arg Tyr Tyr Val Glu Arg
 145 150 155 160
 Gly Glu Ile Arg Arg Phe Val Ile Lys Cys Arg Val Asp Asn Gln Ser
 165 170 175
 Ser Asn Arg Val Ala Gln Arg Asn Gly Phe Thr Leu Glu Gly Cys Leu
 180 185 190
 Arg Lys Ala Glu Met Leu Asn Gly Arg Tyr Asp Asp Val Asn Leu Tyr
 195 200 205
 Ala Arg Ile Phe Pro Leu
 210 215

<210> 7040

<211> 201

<212> PRT

<213> Enterobacter cloacae

<400> 7040

Gly Lys Ile Met Thr Val Asp Glu Asn Tyr Phe Thr Glu Lys Tyr Gly
 1 5 10 15
 Leu Thr Arg Thr His Ser Glu Val Leu Leu Ser Ala Asp Ile Val Lys
 20 25 30
 Pro Gly Lys Thr Leu Asp Leu Gly Cys Gly Asn Gly Arg Asn Ser Leu
 35 40 45
 Tyr Leu Ala Ala Asn Gly His Asp Val Thr Ala Trp Asp Lys Asn Pro
 50 55 60
 Met Ser Ile Asp Asn Ile Glu Arg Ile Lys Ala Ala Glu Gly Ile Ala

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Leu | Gln | Thr | Ala | Ile | Lys | Asp | Leu | Asn | Asn | Leu | Thr | Phe | Asp | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Tyr | Asp | Phe | Ile | Leu | Ser | Thr | Val | Val | Leu | Met | Phe | Leu | Glu | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Thr | Ile | Pro | Gly | Leu | Ile | Ala | Asn | Met | Gln | Arg | Cys | Thr | Lys | Pro |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Gly | Gly | Tyr | Asn | Leu | Ile | Val | Ala | Ala | Met | Asp | Thr | Glu | Asp | Tyr | Pro |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Cys | Thr | Val | Gly | Phe | Pro | Phe | Ala | Phe | Lys | Pro | Gly | Glu | Leu | Ser | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Tyr | Tyr | Glu | Gly | Trp | Glu | Leu | Ile | Lys | Tyr | Asn | Glu | Glu | Val | Gly | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | His | Arg | Thr | Asp | Ala | Asn | Gly | Asn | Arg | Ile | Lys | Leu | Arg | Phe | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Met | Leu | Ala | Arg | Lys | Pro | Ala | | | | | | | | |
| | | 195 | | | | | 200 | | | | | | | | |

<210> 7041

<211> 287

<212> PRT

<213> Enterobacter cloacae

<400> 7041

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Ser | Leu | Leu | Arg | Lys | Met | Arg | Arg | Arg | Tyr | Gly | Gln | Val | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Pro | Phe | Val | Gly | Leu | His | His | Val | Lys | Glu | Phe | Glu | Met | Lys | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ala | Leu | Val | Val | Gly | Met | Gly | Leu | Leu | Cys | Ser | Phe | Ser | Ser | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ala | Thr | Glu | Leu | Arg | Tyr | Gly | Leu | Glu | Ala | Glu | Tyr | Pro | Pro | Phe |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Glu | Ser | Arg | Asn | Ala | Ser | Gly | Glu | Leu | Glu | Gly | Phe | Asp | Val | Glu | Leu |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Gly | Asn | Ala | Ile | Cys | Lys | Ala | Ala | Ala | Leu | Lys | Cys | Ser | Trp | Val | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Ser | Phe | Asp | Ala | Leu | Ile | Pro | Gly | Leu | Val | Ala | Lys | Lys | Phe | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ile | Asn | Ser | Ala | Met | Asn | Ile | Thr | Glu | Gln | Arg | Arg | Lys | Ser | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Phe | Thr | Gln | Pro | Ile | Tyr | Arg | Ile | Pro | Ser | Gln | Leu | Val | Gly | Lys |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ala | Gly | Ser | Ala | Val | Glu | Ala | Thr | Pro | Glu | Gly | Leu | Lys | Gly | Lys | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Gly | Val | Leu | Gln | Gly | Ser | Ile | Gln | Glu | Thr | Tyr | Ala | Lys | Glu | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Trp | Glu | Lys | His | Gly | Val | Thr | Val | Val | Ser | Tyr | Lys | Asp | Gln | Asn | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Trp | Gly | Asp | Leu | Leu | Asn | Gly | Arg | Ile | Asp | Ala | Ser | Leu | Val | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Ala | Ala | Gly | Gln | Ala | Gly | Phe | Leu | Ser | Lys | Pro | Gln | Gly | Lys | Gly |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Phe | Gly | Phe | Ile | Gly | Lys | Pro | Val | Ser | Asp | Asp | Thr | Ile | Leu | Gly | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ile | Gly | Phe | Gly | Leu | Arg | Lys | Gly | Asp | Glu | Ala | Thr | Lys | Lys | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Asp | Ala | Ala | Ile | Asp | Lys | Val | Arg | Ala | Asp | Gly | Thr | Ile | Ala | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Ala | Asp | Lys | Tyr | Phe | Pro | Gly | Ile | Asp | Val | Ser | Val | Lys | | |
| | | 275 | | | | | 280 | | | | | 285 | | | |

<210> 7042
 <211> 336
 <212> PRT
 <213> Enterobacter cloacae

<400> 7042

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Pro Leu Lys Lys Met His Asn Leu Asn Gln Arg Val Leu Asn Leu Pro
1      5      10      15
Ala Gly Tyr Phe Gly Met Val Leu Gly Thr Ile Gly Met Gly Phe Ala
20
Trp Arg Tyr Ala Ser Thr Ile Trp Pro Val Thr Arg Trp Pro Gly Glu
35      40      45
Ile Leu Val Ala Leu Ala Val Ala Ile Trp Phe Leu Leu Ser Val Ala
50      55      60
Phe Leu Thr Arg Ala Val Arg Phe Pro His Ser Val Leu Ala Glu Met
65      70      75      80
Arg His Pro Val Met Ser Ser Phe Val Ser Leu Phe Pro Ala Thr Thr
85      90      95
Leu Leu Val Ala Ile Gly Phe Val Pro Trp Tyr Arg Pro Val Ala Leu
100      105      110
Gly Leu Phe Ser Val Gly Val Val Ile Gln Leu Ala Tyr Ala Ala Trp
115      120      125
Gln Ser Ala Gly Leu Trp Arg Gly Lys His Pro Glu Glu Ala Thr Thr
130      135      140
Pro Gly Leu Tyr Leu Pro Thr Val Ala Asn Asn Phe Ile Ser Ala Met
145      150      155      160
Ala Cys Gly Ala Leu Gly Phe His Asp Ala Gly Leu Val Phe Leu Gly
165      170      175
Ala Gly Val Phe Ser Trp Leu Ser Leu Glu Pro Val Ile Leu Gln Arg
180      185      190
Leu Arg Ser Ala Gly Glu Leu Pro Ala Ala Leu Arg Thr Ser Leu Gly
195      200      205
Ile Gln Leu Ala Pro Ala Leu Val Ala Cys Ser Ala Trp Phe Ser Val
210      215      220
Asn Gly Gly Glu Ala Asp Thr Phe Ala Lys Met Leu Phe Gly Tyr Gly
225      230      235      240
Leu Leu Gln Leu Leu Phe Met Leu Arg Leu Met Pro Trp Tyr Leu Ser
245      250      255
Gln Pro Phe Asn Ala Ser Phe Trp Ser Phe Ser Phe Gly Val Ser Ala
260      265      270
Leu Ala Thr Thr Gly Leu His Leu Gly Gln Ser Ser Pro Ser Gly Phe
275      280      285
Phe His Ala Leu Ala Val Pro Leu Phe Ile Phe Thr Asn Val Ile Ile
290      295      300
Ala Met Leu Leu Val Arg Thr Phe Ile Leu Leu Met Gln Gly Lys Leu
305      310      315      320
Leu Val Arg Ala Asp Lys Ala Leu Leu Met Gln Ser Glu Glu Lys
325      330      335

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<210> 7043
 <211> 533
 <212> PRT
 <213> Enterobacter cloacae

<400> 7043

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Met Met Lys Ser Thr Phe Thr Met Ile Thr Leu Ala Leu Ala Ala Leu
1      5      10      15
Thr Val Ser Ser Thr Val Ala Ala Lys Thr Leu Val Tyr Cys Ser Glu
20      25      30
Gly Ser Pro Glu Asn Phe Asn Pro Gln Leu Tyr Thr Ser Gly Thr Ser
35      40      45

```


| | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Val 50 | Asp 55 | Ala 60 | Ser 65 | Ala 70 | Val 75 | Pro 80 | Val 85 | Tyr 90 | Asn 95 | Arg 100 | Leu 105 | Val 110 | Asp 115 | Phe 120 | Lys 125 |
| Pro 65 | Gly 70 | Thr 75 | Thr 80 | Glu 85 | Leu 90 | Val 95 | Pro 100 | Ser 105 | Leu 110 | Ala 115 | Glu 120 | Ser 125 | Trp 130 | Glu 135 | Val 140 |
| Ser 70 | Glu 75 | Asp 80 | Gly 85 | Lys 90 | Val 95 | Tyr 100 | Thr 105 | Phe 110 | His 115 | Leu 120 | Arg 125 | Lys 130 | Gly 135 | Val 140 | Lys 145 |
| Phe 75 | His 80 | Ser 85 | Asn 90 | Lys 95 | Leu 100 | Phe 105 | Thr 110 | Pro 115 | Thr 120 | Arg 125 | Asp 130 | Phe 135 | Asn 140 | Ala 145 | Asp 150 |
| Asp 80 | Val 85 | Ile 90 | Phe 95 | Ser 100 | Phe 105 | Met 110 | Arg 115 | Gln 120 | Lys 125 | Asp 130 | Val 135 | Asn 140 | His 145 | Pro 150 | Tyr 155 |
| His 85 | Asn 90 | Val 95 | Ser 100 | Asn 105 | Gly 110 | Ser 115 | Tyr 120 | Ser 125 | Asn 130 | Phe 135 | Glu 140 | Ser 145 | Leu 150 | Glu 155 | Phe 160 |
| Gly 90 | Ser 95 | Leu 100 | Ile 105 | Thr 110 | Ala 115 | Ile 120 | Asp 125 | Lys 130 | Val 135 | Asp 140 | Asp 145 | Arg 150 | Thr 155 | Val 160 | Arg 165 |
| Phe 95 | Thr 100 | Leu 105 | Ala 110 | His 115 | Pro 120 | Glu 125 | Ala 130 | Pro 135 | Phe 140 | Val 145 | Ala 150 | Asp 155 | Leu 160 | Ala 165 | Trp 170 |
| Tyr 100 | Phe 105 | Ala 110 | Ser 115 | Ile 120 | Leu 125 | Ser 130 | Ala 135 | Glu 140 | Tyr 145 | Ala 150 | Asp 155 | Ala 160 | Met 165 | Leu 170 | Lys 175 |
| Ala 105 | Gly 110 | Thr 115 | Pro 120 | Glu 125 | Lys 130 | Val 135 | Asp 140 | Met 145 | Gln 150 | Pro 155 | Ile 160 | Gly 165 | Thr 170 | Gly 175 | Pro 180 |
| Phe 110 | Lys 115 | Leu 120 | Ser 125 | Gln 130 | Tyr 135 | Gln 140 | Lys 145 | Asp 150 | Ser 155 | Arg 160 | Ile 165 | Leu 170 | Phe 175 | Thr 180 | Ala 185 |
| Phe 115 | Pro 120 | Asp 125 | Tyr 130 | Trp 135 | Gln 140 | Gly 145 | Lys 150 | Ser 155 | Lys 160 | Leu 165 | Asp 170 | Arg 175 | Leu 180 | Val 185 | Phe 190 |
| Thr 120 | Ile 125 | Thr 130 | Pro 135 | Asp 140 | Ala 145 | Ser 150 | Val 155 | Arg 160 | Phe 165 | Ala 170 | Lys 175 | Val 180 | Glu 185 | Lys 190 | Asn 195 |
| Glu 125 | Cys 130 | Gln 135 | Val 140 | Met 145 | Pro 150 | Phe 155 | Pro 160 | Asn 165 | Pro 170 | Ala 175 | Asp 180 | Leu 185 | Pro 190 | Arg 195 | Met 200 |
| Lys 130 | Ala 135 | Asn 140 | Lys 145 | Asp 150 | Ile 155 | Asn 160 | Leu 165 | Met 170 | Ser 175 | Lys 180 | Ala 185 | Gly 190 | Leu 195 | Asn 200 | Thr 205 |
| Gly 135 | Phe 140 | Leu 145 | Ala 150 | Phe 155 | Asn 160 | Thr 165 | Gln 170 | Lys 175 | Pro 180 | Pro 185 | Leu 190 | Asn 195 | Asn 200 | Val 205 | Lys 210 |
| Val 140 | Arg 145 | Gln 150 | Ala 155 | Leu 160 | Ala 165 | Met 170 | Ala 175 | Ile 180 | Asn 185 | Lys 190 | Pro 195 | Ala 200 | Ile 205 | Ile 210 | Glu 215 |
| Ala 145 | Val 150 | Phe 155 | His 160 | Gly 165 | Thr 170 | Gly 175 | Thr 180 | Ala 185 | Ala 190 | Lys 195 | Asn 200 | Leu 205 | Leu 210 | Pro 215 | Pro 220 |
| Gly 150 | Val 155 | Trp 160 | Ser 165 | Ala 170 | Asp 175 | Ser 180 | Glu 185 | Leu 190 | Lys 195 | Asp 200 | Tyr 205 | Asp 210 | Tyr 215 | Asp 220 | Pro 225 |
| Glu 155 | Lys 160 | Ala 165 | Lys 170 | Ala 175 | Leu 180 | Leu 185 | Lys 190 | Glu 195 | Ala 200 | Gly 205 | Phe 210 | Ala 215 | Asn 220 | Gly 225 | Val 230 |
| Ser 160 | Ile 165 | Asp 170 | Leu 175 | Trp 180 | Ala 185 | Met 190 | Pro 195 | Val 200 | Gln 205 | Arg 210 | Pro 215 | Tyr 220 | Asn 225 | Pro 230 | Asn 235 |
| Ala 165 | Lys 170 | Arg 175 | Met 180 | Ala 185 | Glu 190 | Met 195 | Ile 200 | Gln 205 | Ala 210 | Asp 215 | Trp 220 | Ala 225 | Lys 230 | Val 235 | Gly 240 |
| Val 170 | Gln 175 | Thr 180 | Lys 185 | Ile 190 | Val 195 | Thr 200 | Tyr 205 | Glu 210 | Trp 215 | Gly 220 | Glu 225 | Tyr 230 | Leu 235 | Lys 240 | Arg 245 |
| Val 175 | Lys 180 | Gly 185 | Gly 190 | Glu 195 | His 200 | Gln 205 | Ala 210 | Ala 215 | Leu 220 | Met 225 | Gly 230 | Trp 235 | Thr 240 | Thr 245 | Ala 250 |
| Thr 180 | Gly 185 | Asp 190 | Pro 195 | Asp 200 | Asn 205 | Phe 210</ | | | | | | | | | |

530

<210> 7044
 <211> 275
 <212> PRT
 <213> Enterobacter cloacae

<400> 7044

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Leu Lys Lys Leu Lys Ile Asn Tyr Leu Leu Ile Gly Ile Val Thr Leu
1      5      10
Leu Leu Ala Val Ala Leu Trp Pro Ser Ile Pro Trp Phe Gly Lys Ala
20      25      30
Glu Asn Arg Ile Ala Ala Ile Gln Glu Arg Gly Glu Leu Arg Val Ser
35      40      45
Thr Leu Ser Ser Pro Leu Ile Tyr Asp Asp Ile Asn Gly Lys Thr Ile
50      55      60
Gly Leu Asp Tyr Glu Leu Ala Gln Leu Phe Ala Asp Tyr Leu Gly Val
65      70      75      80
Lys Leu Lys Val Thr Val Arg Gln Asn Ile Asn Gln Leu Phe Asp Asp
85      90      95
Leu Asp His Asp Arg Ala Asp Ile Leu Ala Ala Gly Leu Val Tyr Asn
100      105      110
Ser Glu Arg Ser Lys Asn Tyr Gln Pro Gly Pro Thr Tyr Tyr Ser Val
115      120      125
Ser Gln Gln Val Val Tyr Arg Val Gly Ser Leu Arg Pro Arg Ser Leu
130      135      140
Ala Asp Ile Thr Asp Gln Gln Leu Thr Ile Ala Pro Gly His Val Val
145      150      155      160
Ile Asp Asp Leu Arg Ala Leu Lys Glu Lys Lys Tyr Pro Asn Leu Ser
165      170      175
Trp Thr Val Asp Pro Lys Leu Gly Thr Thr Glu Leu Leu Glu Gln Val
180      185      190
Lys Asp Lys Lys Leu Ala Tyr Thr Ile Ala Asp Ser Val Ala Ile Ser
195      200      205
Leu Phe Gln Arg Val His Pro Glu Ile Ala Val Ala Leu Asp Val Thr
210      215      220
Asp Glu Gln Pro Val Thr Trp Phe Thr Gln Leu Asp Asp Asp Gln Thr
225      230      235      240
Val Ser Ala Ala Met Leu Asp Phe Phe Asn Ser Ile Asn Glu Asp Gly
245      250      255
Thr Leu Ala Ser Ser Thr Thr Gly Val Glu Gly Ala Ala His Ser Val
260      265      270
Arg Trp Gln
275

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<210> 7045
 <211> 259
 <212> PRT
 <213> Enterobacter cloacae

<400> 7045

```

Pro Lys Arg Gly Ser Cys Gln Pro Ser Trp Val Lys Thr Thr Arg Ala
1      5      10      15
Phe Arg Ile Val Glu Lys Thr Pro Arg Ser Ala Leu Ile Thr Ser Phe
20      25      30
Glu Phe Glu Pro Val Asp Gly Gln Pro Val Ala Asp Tyr Gln Pro Gly
35      40      45
Gln Tyr Leu Gly Val Trp Leu Lys Pro Glu Gly Phe Pro His Gln Glu
50      55      60
Ile Arg Gln Tyr Ser Leu Thr Arg Lys Pro Asp Gly Lys Gly Tyr Arg
65      70      75      80

```


Ile Ala Val Lys Arg Glu Glu Gly Gly Gln Val Ser Asn Trp Leu His
 85 90 95
 Asn Glu Ala Ser Val Gly Asp Val Val His Leu Ala Ala Pro Ala Gly
 100 105 110
 Asp Phe Phe Met Ala Val Glu Thr Asn Thr Pro Val Thr Leu Ile Ser
 115 120 125
 Ala Gly Val Gly Gln Thr Pro Met Leu Ala Met Leu Asp Thr Leu Ala
 130 135 140
 Lys Ala Asn His Ser Ala Gln Val Asn Trp Phe His Ala Ala Glu Asn
 145 150 155 160
 Gly Asp Val His Ala Phe Ala Asp Glu Val Lys Ala Leu Gly Ala Gly
 165 170 175
 Leu Pro His Phe Thr Ala His Thr Trp Tyr Arg Ser Pro Thr Glu Ala
 180 185 190
 Asp Arg Ala Ala Ala Arg Phe Asp Ser Glu Gly Leu Met Asn Leu Gly
 195 200 205
 Gln His Glu Gly Ala Phe Ser Ala Pro Gly Met Gln Phe Tyr Val Cys
 210 215 220
 Gly Pro Val Ala Phe Met Gln Tyr Ala Ala Lys Gln Leu Val Asp Leu
 225 230 235 240
 Gly Val Asn Lys Asp Asn Ile His Tyr Glu Cys Phe Gly Pro His Lys
 245 250 255
 Val Leu

<210> 7046

<211> 262

<212> PRT

<213> Enterobacter cloacae

<400> 7046

Ile Ala Met Gly Ser Gly Asn Asn Ala His Val Asp Ile Asp Ile Ala
 1 5 10 15
 Val Ala Ala Lys Arg Thr His Phe Pro Leu Leu Gln His Ala Gln Gln
 20 25 30
 Phe Asp Leu Gln Arg Arg Gly His Ile Ala Asn Phe Ile Lys Glu Gln
 35 40 45
 Arg Ala Pro Leu Cys Arg Leu Glu Gln Pro Phe Thr Ala Ala His Arg
 50 55 60
 Ala Gly Lys Gly Ala Ala Gly Met Ala Glu Glu Leu Arg Leu Lys Gln
 65 70 75 80
 Leu Phe Arg Gln Arg Ala Thr Val Asp Gly Asn Lys Gly Ile Phe Thr
 85 90 95
 Ala Trp Ala Gly Val Val Asp Arg Leu Gly Gln Asp Leu Phe Pro Gly
 100 105 110
 Pro Ala Leu Ala Val Asp Gln His Ala Asn Val Gly Leu Arg His His
 115 120 125
 Pro Arg Leu Phe Gln Gln Ala Gln His His Arg Ala Thr Arg His Asp
 130 135 140
 Gly Phe Thr Pro Ala Val Val Ala Gly Trp Arg Arg Val Leu Lys Ser
 145 150 155 160
 Ala Val Asp Arg Phe Ile Glu Gly Val Phe Ile His Arg Phe Gly Glu
 165 170 175
 Glu Ala Glu Tyr Pro Leu Leu Arg Arg Gly His Arg Ile Arg Asn Arg
 180 185 190
 Ser Val Ser Gly Glu Asp Asn His Arg His Pro Gly Leu Leu Leu
 195 200 205
 Asp Leu Arg Glu Gln Leu Gln Ala Ile His Phe Ile His Ala Gln Ile
 210 215 220
 Ala Asp His Gln Ile Asp Phe Leu Ala Ala Glu His Phe Gln Pro Leu
 225 230 235 240


```
<210> 7047
<211> 495
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-------|-----|-----|-----|-----------|-----|
| Arg 1 | Ala | Asp | Ser | Val 5 | Thr | Leu | Ser | Ser | Asn 10 | Pro | Asp | Asp | Glu | Ser 15 | Asn |
| Val | Leu | Lys | Arg | Trp | Pro | Ala | Phe | Pro | Arg | Ser | Leu | Arg | Gln | Leu | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Met | Ala | Phe | Leu | Leu | Ile | Leu | Leu | Pro | Leu | Leu | Val | Leu | Ala | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ala | Trp | Gln | Ser | Leu | Asn | Ala | Leu | Ser | Ala | Gln | Ala | Ala | Leu | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn 65 | Arg | Thr | Thr | Leu | Ile | Asp | Ala | Arg | Arg | Ser | Glu | Ala | Met | Thr | Asn |
| | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ala | Leu | Glu | Met | Glu | Arg | Ser | Tyr | Arg | Gln | Tyr | Cys | Val | Leu | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Arg | Thr | Leu | Glu | Arg | Val | Tyr | Gln | Asn | Gln | Arg | Lys | Arg | Tyr | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Met | Leu | Asp | Ala | His | Ala | Gly | Val | Leu | Pro | Asp | Asp | Lys | Leu | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Ala | Leu | Arg | Gln | Asp | Leu | Asn | Asp | Leu | Ala | Arg | Leu | Gln | Cys | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn 145 | Ser | Gly | Pro | Asp | Ala | Ala | Ala | Ala | Ala | Arg | Leu | Glu | Ala | Phe | Ala |
| | | | | 150 | | | | | | 155 | | | | | 160 |
| Asn | Ala | Asn | Thr | Glu | Met | Val | Gln | Ser | Thr | Arg | Thr | Val | Ile | Phe | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Gly | Gln | Gln | Leu | Gln | Gln | Glu | Ile | Ala | Glu | Arg | Gly | Gln | Phe | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Trp | Gln | Ala | Leu | Val | Leu | Phe | Leu | Val | Ser | Leu | Gly | Leu | Val | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Phe | Thr | Arg | Met | Ile | Ile | Gly | Pro | Val | Lys | Gly | Ile | Gln | Arg | Met |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile 225 | Asn | Arg | Leu | Gly | Glu | Gly | Lys | Ser | Leu | Gly | Asp | Thr | Val | Val | Phe |
| | | | | 230 | | | | | | 235 | | | | | 240 |
| Lys | Gly | Pro | Arg | Glu | Leu | Arg | Ser | Val | Gly | Gln | Arg | Ile | Ile | Trp | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Glu | Arg | Leu | Ala | Trp | Leu | Glu | Ser | Gln | Arg | His | Gln | Phe | Leu | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| His | Ile | Ser | His | Glu | Leu | Lys | Thr | Pro | Leu | Ala | Ser | Met | Arg | Glu | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Glu | Leu | Leu | Ala | Asp | Glu | Val | Ala | Gly | Pro | Leu | Ser | Pro | Glu | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys 305 | Glu | Ile | Val | Ala | Ile | Leu | Asp | Ala | Ser | Ser | Arg | Asn | Leu | Gln | Lys |
| | | | | 310 | | | | | | 315 | | | | | 320 |
| Leu | Ile | Glu | Gln | Leu | Leu | Asp | Tyr | Asn | Arg | Lys | Leu | Ala | Asp | Gly | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Val | Val | Leu | Glu | Ser | Val | Glu | Ile | Glu | Pro | Leu | Val | Asp | Met | Val | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Ala | His | Ser | Leu | Pro | Ala | Arg | Ala | Lys | Met</ | | | | | |

Gly Thr Ile Tyr Ile Arg Ser Asn Asn Asn Gly Ser Arg Val Phe Ile
 405 410 415
 Asp Val Ala Asn Thr Gly Ser Pro Ile Pro Asp Asp Glu Lys Thr Met
 420 425 430
 Ile Phe Glu Pro Phe Phe Gln Gly Ser His Gln Arg Lys Gly Ala Val
 435 440 445
 Lys Gly Ser Gly Leu Gly Leu Ser Ile Ala Arg Asp Cys Ile Arg Arg
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 Met Gln Gly Glu Leu Asn Ile Val Ser Asp Glu Arg Ala Asp Val Cys
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<211> 116

<212> PRT

<213> Enterobacter cloacae

<400> 7048

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 Val Thr Glu Val Lys Gly Phe Gly Arg Gln Lys Gly His Thr Glu Leu
 35 40 45
 Tyr Arg Gly Ala Glu Tyr Met Val Asp Phe Leu Pro Lys Val Lys Ile
 50 55 60
 Glu Ile Val Val Ser Asp Glu Ile Val Asp Thr Cys Val Asp Thr Ile
 65 70 75 80
 Ile Arg Thr Ala Gln Thr Gly Lys Ile Gly Asp Gly Lys Ile Phe Val
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 Ala Ala Ile
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<400> 7049

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 Gln Glu Gly Leu Lys Val Leu Ser Arg Glu Lys Ile Asp Leu Val Ile
 50 55 60
 Ser Asp Leu Arg Met Asp Glu Met Asp Gly Leu Gln Leu Phe Thr Glu
 65 70 75 80
 Ile Gln Lys Gln Gln Pro Gly Met Pro Val Ile Ile Leu Thr Ala His
 85 90 95
 Gly Ser Ile Pro Asp Ala Val Ala Ala Thr Gln Gln Gly Val Phe Ser
 100 105 110
 Phe Leu Thr Lys Pro Val Asp Lys Asp Ala Leu Tyr Lys Ala Ile Asp
 115 120 125
 Ser Ala Leu Glu His Ala Ala Pro Ser Gly Asp Asp Gly Trp Arg Glu
 130 135 140
 Ser Ile Val Thr Arg Ser Pro Val Met Leu Arg Leu Leu Glu Gln Ala

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | 155 | | | | 160 |
| Arg | Met | Val | Ala | Gln | Ser | Asp | Val | Ser | Val | Leu | Ile | Asn | Gln |
| | | | | 165 | | | | | 170 | | | | 175 |
| Gly | Thr | Gly | Lys | Glu | Ile | Leu | Ala | Gln | Ala | Ile | His | Asn | Ala |
| | | | 180 | | | | | 185 | | | | 190 | |
| Arg | Ser | Lys | Asn | Ala | Phe | Ile | Ala | Ile | Asn | Cys | Gly | Ala | Leu |
| | | 195 | | | | | 200 | | | | 205 | | Pro |
| Gln | Leu | Leu | Glu | Ser | Glu | Leu | Phe | Gly | His | Ala | Arg | Gly | Ala |
| | 210 | | | | 215 | | | | | | 220 | | Phe |
| Gly | Ala | Val | Ser | Ser | Arg | Glu | Gly | Leu | Phe | Gln | Ala | Ala | Glu |
| | 225 | | | | 230 | | | | | 235 | | | Gly |
| Thr | Leu | Phe | Leu | Asp | Glu | Ile | Gly | Asp | Met | Pro | Ala | Pro | Leu |
| | | | | 245 | | | | | 250 | | | | Gln |
| Lys | Leu | Leu | Arg | Val | Leu | Gln | Glu | Arg | Lys | Val | Arg | Pro | Leu |
| | | | 260 | | | | | 265 | | | | | Gly |
| Asn | Arg | Asp | Ile | Asp | Ile | Asn | Val | Arg | Ile | Ile | Ser | Ala | Thr |
| | | 275 | | | | | 280 | | | | | 285 | His |
| Asp | Leu | Pro | Lys | Val | Met | Ala | Arg | Asn | Glu | Phe | Arg | Glu | Asp |
| | 290 | | | | | 295 | | | | | 300 | | Leu |
| Tyr | Arg | Leu | Asn | Val | Val | Asn | Leu | Lys | Ile | Pro | Ala | Leu | Ala |
| | 305 | | | | 310 | | | | | 315 | | | Glu |
| Ala | Glu | Asp | Ile | Pro | Leu | Leu | Ala | Asn | His | Leu | Leu | Arg | Gln |
| | | | 325 | | | | | | 330 | | | | Ala |
| Asp | Arg | His | Lys | Pro | Phe | Val | Arg | Ala | Phe | Ser | Thr | Asp | Ala |
| | | | 340 | | | | | 345 | | | | | Met |
| Arg | Leu | Met | Thr | Ala | Ser | Trp | Pro | Gly | Asn | Val | Arg | Gln | Leu |
| | | 355 | | | | | 360 | | | | | 365 | Val |
| Val | Ile | Glu | Gln | Cys | Val | Ala | Leu | Thr | Ser | Ser | Pro | Val | Ile |
| | 370 | | | | | 375 | | | | | 380 | | Ser |
| Ala | Leu | Val | Glu | Gln | Ala | Leu | Glu | Gly | Glu | Asn | Thr | Ala | Leu |
| | 385 | | | | 390 | | | | | 395 | | | Pro |
| Phe | Ala | Glu | Ala | Arg | Asn | Gln | Phe | Glu | Leu | Asn | Tyr | Leu | Arg |
| | | | 405 | | | | | 410 | | | | | Lys |
| Leu | Gln | Ile | Thr | Lys | Gly | Asn | Val | Thr | His | Ala | Ala | Arg | Met |
| | | | 420 | | | | | 425 | | | | | Ala |
| Arg | Asn | Arg | Thr | Glu | Phe | Tyr | Lys | Leu | Leu | Ser | Arg | His | Glu |
| | | 435 | | | | | 440 | | | | | 445 | Leu |
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<210> 7050

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<212> PRT

<213> Enterobacter cloacae

<400> 7050

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| Ala | Pro | Arg | Arg | Phe | Glu | Asp | Glu | Arg | Leu | Met | Met | Glu | Ile | Leu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ser | Pro | Ala | Leu | Ser | Ala | Phe | Arg | Ile | Thr | Lys | Leu | Leu | Ala | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Gln | Ala | Ala | Asp | Leu | Pro | Val | Ser | Asn | Ile | Tyr | Ala | Glu | Tyr | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Phe | Ala | Asp | Leu | Asn | Ala | Pro | Leu | Asn | Ala | Glu | Glu | Arg | Val | Gln |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Leu | Glu | Arg | Leu | Leu | Lys | Tyr | Gly | Pro | Ser | Leu | Ser | Ser | His | Thr | Pro |
| | 65 | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Gly | Lys | Leu | Ile | Leu | Ala | Thr | Pro | Arg | Pro | Gly | Thr | Ile | Ser | Pro |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Trp | Ser | Ser | Lys | Ala | Thr | Asp | Ile | Ala | His | Asn | Cys | Gly | Leu | Asn | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Asn | Arg | Leu | Glu | Arg | Gly | Val | Ala | Tyr | Tyr | Val | Glu | Ala | Ser | Thr |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Leu | Ser | Asp | Ala | Gln | Trp | Gln | Ala | Val | Ala | Ala | Glu | Leu | His | Asp | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Met | Glu | Ser | Val | Phe | Asp | Ser | Leu | Asp | Asp | Ala | Gln | Lys | Leu | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | His | His | Gln | Pro | Ala | Pro | Val | Gln | Ser | Val | Asp | Leu | Leu | Gly | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Arg | Gln | Ala | Leu | Ile | Asp | Ala | Asn | Leu | Arg | Leu | Gly | Leu | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Glu | Asp | Glu | Ile | Asp | Tyr | Leu | Gln | Asp | Ala | Phe | Val | Lys | Leu | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Asn | Pro | Asn | Asp | Ile | Glu | Leu | Tyr | Met | Phe | Ala | Gln | Ala | Asn | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | His | Cys | Arg | His | Lys | Ile | Phe | Asn | Ala | Asp | Trp | Ile | Ile | Asp | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Gln | Gln | Pro | Lys | Ser | Leu | Phe | Lys | Met | Ile | Lys | Asn | Thr | Met | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Thr | Pro | Asp | His | Val | Leu | Ser | Ala | Tyr | Lys | Asp | Asn | Ala | Ala | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Met | Glu | Gly | Ser | Glu | Val | Gly | Arg | Phe | Phe | Ala | Asp | Arg | Glu | Ala | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Arg | Tyr | Asp | Phe | His | Gln | Glu | Pro | Ala | His | Ile | Leu | Met | Lys | Val | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | His | Asn | His | Pro | Thr | Ala | Ile | Ser | Pro | Trp | Pro | Gly | Ala | Ala | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Ser | Gly | Gly | Glu | Ile | Arg | Asp | Glu | Gly | Ala | Thr | Gly | Arg | Gly | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Lys | Pro | Lys | Ala | Gly | Leu | Val | Gly | Phe | Ser | Val | Ser | Asn | Leu | Arg | Ile |
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| Pro | Gly | Phe | Glu | Gln | Pro | Trp | Glu | Glu | Asp | Phe | Gly | Lys | Pro | Glu | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Val | Thr | Ala | Leu | Asp | Ile | Met | Thr | Glu | Gly | Pro | Leu | Gly | Gly | Ala |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Phe | Asn | Asn | Glu | Phe | Gly | Arg | Pro | Ala | Leu | Asn | Gly | Tyr | Phe | Arg |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Thr | Tyr | Glu | Glu | Lys | Val | Asp | Ser | His | Asn | Gly | Glu | Glu | Leu | Arg | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | His | Lys | Pro | Ile | Met | Leu | Ala | Gly | Gly | Ile | Gly | Asn | Ile | Arg | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | His | Val | Gln | Lys | Gly | Glu | Ile | Val | Val | Gly | Ala | Lys | Leu | Ile | Val |
| | | 435 | | | | 440 | | | | | | 445 | | | |
| Leu | Gly | Gly | Pro | Ala | Met | Asn | Ile | Gly | Leu | Gly | Gly | Gly | Ala | Ala | Ser |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ser | Met | Ala | Ser | Gly | Gln | Ser | Asp | Ala | Asp | Leu | Asp | Phe | Ala | Ser | Val |
| 46 | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Asp | Leu | Pro | Leu | Asp | Val | Leu | Leu | Gly | Lys | Thr | Pro | Lys | Met | Thr | Arg |
| 610 | | | | | | 615 | | | | | 620 | | | | |
| Asp | Val | Gln | Thr | Arg | Lys | Ala | Ala | Gly | Lys | Ala | Leu | Asp | Arg | Gln | Gly |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Ile | Thr | Val | Ala | Glu | Ala | Val | Asn | Arg | Val | Leu | His | Leu | Pro | Ala | Val |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Ala | Glu | Lys | Thr | Phe | Leu | Val | Thr | Ile | Gly | Asp | Arg | Thr | Val | Thr | Gly |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Met | Val | Ser | Arg | Asp | Gln | Met | Val | Gly | Pro | Trp | Gln | Ile | Pro | Val | Ala |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Asn | Cys | Ala | Val | Thr | Thr | Ala | Ser | Leu | Asp | Ser | Tyr | Tyr | Gly | Glu | Ala |
| 690 | | | | | | 695 | | | | | 700 | | | | |
| Met | Ala | Leu | Gly | Glu | Arg | Thr | Pro | Val | Ala | Leu | Leu | Asp | Phe | Ala | Ala |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Ser | Ala | Arg | Leu | Ala | Val | Gly | Glu | Ala | Leu | Thr | Asn | Ile | Ala | Ala | Thr |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Gln | Ile | Gly | Asp | Ile | Lys | Arg | Ile | Lys | Leu | Ser | Ala | Asn | Trp | Met | Ala |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Ala | Ala | Gly | His | Pro | Gly | Glu | Asp | Ala | Gly | Leu | Tyr | Glu | Ala | Val | Lys |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Ala | Val | Gly | Glu | Glu | Leu | Cys | Pro | Ala | Leu | Gly | Leu | Thr | Ile | Pro | Val |
| | | 770 | | | | 775 | | | | | 780 | | | | |
| Gly | Lys | Asp | Ser | Met | Ser | Met | Lys | Thr | Arg | Trp | Gln | Glu | Gly | Asn | Glu |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Gln | Arg | Glu | Met | Thr | Ser | Pro | Leu | Ser | Leu | Val | Ile | Thr | Ala | Phe | Ala |
| | | | | 805 | | | | | | 810 | | | | 815 | |
| Arg | Val | Glu | Asp | Val | Arg | His | Thr | Val | Thr | Pro | Gln | Leu | Ser | Thr | Glu |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Asp | Asn | Ala | Leu | Leu | Leu | Ile | Asp | Leu | Gly | Lys | Gly | His | Asn | Ala | Leu |
| | | 835 | | | | | 840 | | | | | 845 | | | |
| Gly | Ala | Thr | Ala | Leu | Ala | Gln | Val | Tyr | Arg | Gln | Leu | Gly | Asp | Lys | Pro |
| | | 850 | | | | 855 | | | | | 860 | | | | |
| Ala | Asp | Val | Arg | Asp | Val | Ala | Gln | Leu | Lys | Gly | Phe | Tyr | Asp | Ala | Ile |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 |
| Gln | Ala | Leu | Val | Ala | Gln | Arg | Lys | Leu | Leu | Ala | Tyr | His | Asp | Arg | Ser |
| | | | | 885 | | | | | 890 | | | | | 895 | |
| Asp | Gly | Gly | Leu | Leu | Val | Thr | Leu | Ala | Glu | Met | Ala | Phe | Thr | Gly | His |
| | | | 900 | | | | | 905 | | | | | 910 | | |
| Cys | Gly | Val | Glu | Ala | Asn | Ile | Ala | Thr | Leu | Gly | Glu | Asp | Arg | Leu | Ala |
| | | 915 | | | | | 920 | | | | | 925 | | | |
| Ala | Leu | Phe | Asn | Glu | Glu | Leu | Gly | Ala | Val | Ile | Gln | Val | Arg | Ala | Ala |
| | | 930 | | | | 935 | | | | | 940 | | | | |
| Asp | Arg | Asp | Ala | Val | Glu | Ala | Ile | Leu | Ala | Gln | His | Gly | Leu | Ala | Asp |
| 945 | | | | | 950 | | | | | 955 | | | | | 960 |
| Cys | Val | His | Tyr | Leu | Gly | Lys | Ala | Val | Gln | Gly | Asp | Arg | Phe | Val | Ile |
| | | | | 965 | | | | | 970 | | | | | 975 | |
| Glu | Ala | Asp | Gly | His | Ala | Val | Phe | Ser | Glu | Ser | Arg | Thr | Thr | Leu | Arg |
| | | | 980 | | | | | 985 | | | | | 990 | | |
| Met | Trp | Trp | Ala | Glu | Thr | Thr | Trp | Gln | Met | Gln | Arg | Leu | Arg | Asp | Asn |
| | | 995 | | | | | 1000 | | | | | 1005 | | | |
| Pro | Glu | Cys | Ala | Asp | Gln | Glu | His | Asn | Ala | Lys | Ala | Asn | Asp | Asn | Asp |
| | | 1010 | | | | 1015 | | | | | 1020 | | | | |
| Pro | Gly | Leu | Asn | Val | Lys | Leu | Ser | Phe | Asp | Ile | Asn | Glu | Asp | Ile | Ala |
| 1025 | | | | | 1030 | | | | | 1035 | | | | | 1040 |
| Ala | Pro | Tyr | Ile | Ala | Thr | Gly | Ala | Arg | Pro | Lys | Val | Ala | Val | Leu | Arg |
| | | | | 1045 | | | | | 1050 | | | | | 1055 | |
| Glu | Gln | Gly | Val | Asn | Ser | His | Val | Glu | Met | Ala | Ala | Ala | Phe | His | Arg |
| | | | 1060 | | | | | 1065 | | | | | 1070 | | |
| Ala | Gly | Phe | Asp | Ala | Ile | Asp | Val | His | Met | Ser | Asp | Leu | Leu | Ala | Gly |
| | | 1075 | | | | | 1080 | | | | | 1085 | | | |
| Arg | Thr | Gly | Leu | Asp | Asp | Phe | Gln | Ala | Leu | Val | Ala | Cys | Gly | Gly | Phe |

| | | |
|---|---|------|
| 1090 | 1095 | 1100 |
| Ser Tyr Gly Asp Val | Leu Gly Ala Gly Glu Gly Trp Ala Lys Ser Ile | |
| 1105 | 1110 | 1115 |
| Leu Phe Asn Ser Arg Val | Arg Asp Glu Phe Glu Thr Phe Phe His Arg | 1120 |
| | 1125 | 1130 |
| Pro Gln Thr Leu Ala Leu Gly Val | Cys Asn Gly Cys Gln Met Met Ser | 1135 |
| | 1140 | 1145 |
| Asn Leu Arg Glu Leu Ile | Pro Gly Ser Glu Ala Trp Pro Arg Phe Val | 1150 |
| | 1155 | 1160 |
| Arg Asn Gln Ser Asp Arg Phe | Glu Ala Arg Phe Ser Leu Val Glu Val | 1165 |
| | 1170 | 1175 |
| Thr Gln Ser Pro Ser Leu Leu Gln Gly Met Val Gly Ser Gln Met | | 1180 |
| 1185 | 1190 | 1195 |
| Pro Ile Ala Val Ser His Gly Glu Gly Gln Val Glu Met Arg Asp Ala | | 1200 |
| | 1205 | 1210 |
| Ala His Leu Ala Gln Leu Glu Ser Lys Gly Leu Val Ala Leu Arg Phe | | 1215 |
| | 1220 | 1225 |
| Val Asp Asn Phe Gly Lys Val Thr Glu Thr Tyr Pro Ala Asn Pro Asn | | 1230 |
| | 1235 | 1240 |
| Gly Ser Ala Asn Gly Ile Thr Ala Val Thr Ser Glu Ser Gly Arg Val | | 1245 |
| | 1250 | 1255 |
| Thr Ile Met Met Pro His Pro Glu Arg Val Phe Arg Thr Val Ser Asn | | 1260 |
| 1265 | 1270 | 1275 |
| Ser Trp His Pro Glu Asn Trp Gly Glu Asp Ser Pro Trp Met Arg Ile | | 1280 |
| | 1285 | 1290 |
| Phe Arg Asn Ala Arg Lys Gln Leu Gly | | 1295 |
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<212> PRT

<213> Enterobacter cloacae

<400> 7051

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| | 20 |
| Leu Ser Leu Pro Cys Leu Leu Leu Ala Gly Cys Val Thr His Ala Pro | 25 |
| | 30 |
| Lys Ser Ala Ile Ser His Lys Gln Glu Asp Lys Trp Pro Gln Lys Gln | 35 |
| | 40 |
| Leu Ala Asp Phe Leu Ser Thr Arg Cys Asp Asp Ile Trp Ser Leu Ser | 45 |
| 65 | 50 |
| Gly Arg Asp Val Glu Ser Asn Pro Leu Phe Trp Leu Arg Gly Ile Asp | 55 |
| | 60 |
| Cys Ala Gln Arg Leu Ala Pro Ala Glu Ala Arg Ala Gln Ala Ala Met | 65 |
| | 70 |
| Leu Met Asp Asp Thr Trp Gln Asp Ala Phe Lys Arg Gly Ile Val Met | 75 |
| | 80 |
| Ala Asp Ala Arg Ile Thr Pro Val Glu Arg Arg Ala Asn Val Thr Arg | 85 |
| | 90 |
| Leu Asp Thr Tyr Val Ile Asn Ile Pro Pro Gln Val Arg Pro Val Tyr | 95 |
| 145 | 100 |
| Gln Leu Trp Arg Asp Gly Gln Thr Leu Gln Leu Gln Leu Ser Glu Glu | 105 |
| | 110 |
| Arg Phe Arg Tyr Ser Lys Leu Gln Gln Ser Ser Asp Ser Glu Leu Asp | 115 |
| | 120 |
| Ala Leu Arg Gln Gln Gln Glu Ser Leu Arg Glu Gln Leu Glu Thr Thr | 125 |
| | 130 |
| Thr Arg Lys Leu Glu Asn Leu Thr Asp Ile Glu Arg Gln Leu Ser Thr | 135 |
| | 140 |
| | 145 |
| | 150 |
| | 155 |
| | 160 |
| | 165 |
| | 170 |
| | 175 |
| | 180 |
| | 185 |
| | 190 |
| | 195 |
| | 200 |
| | 205 |

| | | | | |
|---------------------|-------------------------|---------------------|-----|-----|
| 210 | | 215 | | 220 |
| Arg Lys Pro Ala Gly | Ser Tyr Leu Pro Asp Gly | Ser Lys Gly Asn Ser | | |
| 225 | 230 | 235 | 240 | |
| Ala Thr Thr Pro Asp | Ser Glu Thr Pro Lys | Gln Glu Asp Val Lys | Pro | |
| 245 | 250 | 255 | | |

<210> 7052

<211> 431

<212> PRT

<213> Enterobacter cloacae

<400> 7052

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| His Lys Ile Ser Asn Asn Gln Lys Arg Ser Lys Glu Arg Leu Met Glu | |
| 1 5 10 15 | |
| Ser Lys Val Val Val Pro Ala Glu Gly Lys Lys Ile Thr Leu Gln Asn | |
| 20 25 30 | |
| Gly Lys Ile Asn Val Pro His Asn Pro Ile Ile Pro Phe Ile Glu Gly | |
| 35 40 45 | |
| Asp Gly Ile Gly Val Asp Val Thr Pro Ala Met Leu Lys Val Val Asp | |
| 50 55 60 | |
| Ala Ala Val Glu Lys Ala Tyr Lys Gly Glu Arg Lys Ile Ser Trp Met | |
| 65 70 75 80 | |
| Glu Ile Tyr Thr Gly Glu Lys Ser Thr Gln Val Tyr Gly Gln Asp Val | |
| 85 90 95 | |
| Trp Leu Pro Ala Glu Thr Leu Asp Leu Ile Arg Asp Tyr Arg Val Ala | |
| 100 105 110 | |
| Ile Lys Gly Pro Leu Thr Thr Pro Val Gly Gly Gly Ile Arg Ser Leu | |
| 115 120 125 | |
| Asn Val Ala Leu Arg Gln Glu Leu Asp Leu Tyr Val Cys Leu Arg Pro | |
| 130 135 140 | |
| Val Arg Tyr Tyr Gln Gly Thr Pro Ser Pro Val Lys His Pro Glu Leu | |
| 145 150 155 160 | |
| Thr Asp Met Val Ile Phe Arg Glu Asn Ser Glu Asp Ile Tyr Ala Gly | |
| 165 170 175 | |
| Ile Glu Trp Lys Ala Asp Ser Ala Asp Ala Glu Lys Val Ile Lys Phe | |
| 180 185 190 | |
| Leu Arg Glu Glu Met Gly Val Lys Lys Ile Arg Phe Pro Glu His Cys | |
| 195 200 205 | |
| Gly Ile Gly Ile Lys Pro Cys Ser Glu Glu Gly Thr Lys Arg Leu Val | |
| 210 215 220 | |
| Arg Ala Ala Ile Glu Tyr Ala Ile Thr Asn Asp Arg Asp Ser Val Thr | |
| 225 230 235 240 | |
| Leu Val His Lys Gly Asn Ile Met Lys Phe Thr Glu Gly Ala Phe Lys | |
| 245 250 255 | |
| Asp Trp Gly Tyr Gln Leu Ala Thr Glu Glu Phe Gly Gly Glu Leu Ile | |
| 260 265 270 | |
| Asp Gly Gly Pro Trp Gln Lys Ile Lys Asn Pro Asn Thr Gly Lys Glu | |
| 275 280 285 | |
| Ile Ile Ile Lys Asp Val Ile Ala Asp Ala Phe Leu Gln Gln Ile Leu | |
| 290 295 300 | |
| Leu Arg Pro Ala Glu Tyr Asp Val Ile Ala Cys Met Asn Leu Asn Gly | |
| 305 310 315 320 | |
| Asp Tyr Ile Ser Asp Ala Leu Ala Ala Gln Val Gly Gly Ile Gly Ile | |
| 325 330 335 | |
| Ala Pro Gly Ala Asn Ile Gly Asp Glu Cys Ala Leu Phe Glu Ala Thr | |
| 340 345 350 | |
| His Gly Thr Ala Pro Lys Tyr Ala Gly Gln Asp Lys Val Asn Pro Gly | |
| 355 360 365 | |
| Ser Ile Ile Leu Ser Ala Glu Met Met Leu Arg His Met Glu Trp Phe | |

| | | |
|---|-----|-----|
| 370 | 375 | 380 |
| Glu Ala Ala Asp Leu Ile Val Lys Gly Met Glu Gly Ala Ile Asn Ala | | |
| 385 | 390 | 395 |
| Lys Thr Val Thr Tyr Asp Phe Glu Arg Leu Met Glu Gly Ala Lys Leu | | |
| | 405 | 410 |
| Leu Lys Cys Ser Glu Phe Gly Asp Ala Ile Ile Ala Asn Met | | |
| | 420 | 425 |
| | | 430 |

<210> 7053

<211> 100

<212> PRT

<213> Enterobacter cloacae

<400> 7053

| | |
|---|-----|
| Gln Arg Glu Pro Glu Gly Ser Arg Phe Leu Cys Thr Gln Asp Gly Asn | |
| 1 | 5 |
| Asn Ala Met Thr His Asp Ile Pro Leu Lys Tyr Tyr Asp Ile Val Asp | |
| | 20 |
| Glu Tyr Ala Thr Glu Thr Ala Lys Pro Val Glu Glu Ala Glu Arg Thr | |
| | 35 |
| Pro Leu Ala His Tyr Phe Gln Leu Leu Thr Arg Leu Tyr Asn Asn | |
| | 50 |
| Glu Glu Ile Ser Glu Glu Ala Gln Arg Glu Met Ala Val Gln Ala Glu | |
| 65 | 70 |
| Ile Asp Glu Ala Arg Ile Asp Asp Ile Ala Asn Phe Leu Asn Gln Trp | |
| | 85 |
| | 90 |
| | 95 |
| Gly Asn Glu | |
| | 100 |

<210> 7054

<211> 345

<212> PRT

<213> Enterobacter cloacae

<400> 7054

| | |
|---|-----|
| Arg His Ile Asp Gly Asn Ile Pro Ala Ile Gly Phe Ile Ser His Val | |
| 1 | 5 |
| Asp Thr Ser Pro Asp Phe Ser Gly Lys His Val Asn Pro Gln Ile Val | |
| | 20 |
| Glu Asn Tyr Arg Gly Gly Asp Ile Ala Leu Gly Ile Gly Asp Glu Val | |
| | 35 |
| Leu Ser Pro Val Met Phe Pro Val Leu His Gln Leu Leu Gly Gln Thr | |
| | 50 |
| Leu Ile Thr Thr Asp Gly Lys Thr Leu Leu Gly Ala Asp Asp Lys Ala | |
| 65 | 70 |
| Gly Ile Ala Glu Ile Met Thr Ala Leu Ala Val Leu Lys Gly Lys Asn | |
| | 85 |
| | 90 |
| | 95 |
| Ile Pro His Gly Asp Ile Arg Val Ala Phe Thr Pro Asp Glu Glu Val | |
| | 100 |
| | 105 |
| Gly Lys Gly Ala Lys His Phe Asp Val Glu Ala Phe Asn Ala Gln Trp | |
| | 115 |
| | 120 |
| Ala Tyr Thr Val Asp Gly Gly Gly Val Gly Glu Leu Glu Tyr Glu Asn | |
| | 130 |
| | 135 |
| | 140 |
| Phe Asn Ala Ala Ser Val Thr Ile Lys Ile Val Gly Asn Asn Val His | |
| 145 | 150 |
| | 155 |
| Pro Gly Ser Ala Lys Gly Val Met Val Asn Ala Leu Ser Leu Ala Ala | |
| | 165 |
| | 170 |
| | 175 |
| Arg Ile His Ala Glu Val Pro Ala Glu Glu Ser Pro Glu Met Thr Glu | |
| | 180 |
| | 185 |
| | 190 |
| Gly Tyr Glu Gly Phe Tyr His Leu Thr Ser Ile Lys Gly Thr Val Asp | |
| | 195 |
| | 200 |
| | 205 |

Ser Ala Gln Met His Tyr Ile Val Arg Asp Phe Asp Arg Lys Ala Phe
 210 215 220
 Glu Ala Arg Lys Arg Lys Met Met Glu Ile Ala Lys Lys Val Gly Lys
 225 230 235 240
 Gly Leu His Pro Asp Cys Tyr Ile Glu Leu Ile Ile Glu Asp Ser Tyr
 245 250 255
 Tyr Asn Met Arg Glu Lys Val Met Glu His Pro His Ile Leu Asp Ile
 260 265 270
 Ala Gln Gln Ala Met Arg Asp Cys Asp Ile Glu Pro Val Met Lys Pro
 275 280 285
 Ile Arg Gly Gly Thr Asp Gly Ser Gln Leu Ser Phe Met Gly Leu Pro
 290 295 300
 Cys Pro Asn Leu Phe Thr Gly Gly Tyr Asn Tyr His Gly Lys His Glu
 305 310 315 320
 Phe Val Thr Leu Glu Gly Met Glu Lys Ala Val Gln Val Ile Val Arg
 325 330 335
 Ile Ala Glu Leu Thr Ala Lys Arg
 340 345

<210> 7055
 <211> 94
 <212> PRT
 <213> Enterobacter cloacae

<400> 7055
 Phe Asn Asp Lys Asn His Thr Glu Arg Lys Ala Met Gly Ile Leu Ser
 1 5 10 15
 Trp Ile Ile Phe Gly Leu Ile Ala Gly Ile Leu Ala Lys Trp Ile Met
 20 25 30
 Pro Gly Lys Asp Gly Gly Gly Phe Ile Val Thr Ile Ile Leu Gly Ile
 35 40 45
 Val Gly Ala Val Val Gly Gly Trp Ile Ser Thr Leu Phe Gly Phe Gly
 50 55 60
 Arg Val Asp Gly Phe Asn Phe Gly Ser Phe Val Val Ala Val Ile Gly
 65 70 75 80
 Ala Leu Val Val Leu Phe Ile Tyr Arg Lys Ile Lys Ser
 85 90

<210> 7056
 <211> 223
 <212> PRT
 <213> Enterobacter cloacae

<400> 7056
 Ala Ile Met Arg Gln Leu Ile Thr Pro Glu Asn Thr Met Thr Lys Thr
 1 5 10 15
 Ser Phe Arg Lys His Arg Val Glu Arg Phe Ser Ser Arg Gln Ala Thr
 20 25 30
 Arg Arg Thr Pro Glu Pro Gln Pro Thr Arg Val Ile Leu Phe Asn Lys
 35 40 45
 Pro Tyr Asp Val Leu Pro Gln Phe Thr Asp Glu Ala Gly Arg Ser Thr
 50 55 60
 Leu Lys Asp Phe Ile Pro Val Gln Gly Val Tyr Ala Ala Gly Arg Leu
 65 70 75 80
 Asp Arg Asp Ser Glu Gly Leu Leu Val Leu Thr Asn Asp Gly Val Leu
 85 90 95
 Gln Ala Arg Leu Thr Gln Pro Gly Lys Arg Thr Gly Lys Ile Tyr Tyr
 100 105 110
 Val Gln Val Glu Gly Glu Pro Asp Asp Ala Ser Leu Ala Lys Leu Arg
 115 120 125
 Asn Gly Val Thr Leu Asn Asp Gly Pro Thr Leu Pro Ala Gly Ile Glu

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Arg Val Asn Glu Pro Glu Trp Leu Trp Pro Arg Asn Pro Pro Ile Arg | | |
| 145 | 150 | 155 |
| Glu Arg Lys Ser Ile Pro Thr Ser Trp Leu Lys Ile Thr Leu Tyr Glu | | |
| | 165 | 170 |
| Gly Arg Asn Arg Gln Val Arg Arg Met Thr Ala His Val Gly Phe Pro | | |
| | 180 | 185 |
| Thr Leu Arg Leu Ile Arg Tyr Ala Met Gly Ser Tyr Thr Leu Asp Ser | | |
| | 195 | 200 |
| Leu Ala Asn Gly Glu Trp Arg Asp Val Thr Pro Lys Glu Asn | | |
| 210 | 215 | 220 |

<210> 7057

<211> 429

<212> PRT

<213> Enterobacter cloacae

<400> 7057

| | |
|---|-----|
| Thr Arg Gln Thr Cys Ala Arg His Trp Leu Arg Lys Ala Ser Ala Ala | |
| 1 | 5 |
| Gly Ser Leu Arg Arg Ala Cys Arg Trp Met Ser Leu Gln Asn Leu Thr | |
| | 20 |
| Gly Arg Leu Gln Arg Val Ser Met Val Gly Gly Arg Asp Arg Ile Arg | |
| | 35 |
| Arg Leu Glu Val Gln Cys Arg Glu Tyr Ser Met Ser Asp Asn Ser Gln | |
| | 50 |
| Lys Lys Val Ile Val Gly Met Ser Gly Gly Val Asp Ser Ser Val Ser | |
| 65 | 70 |
| Ala Tyr Leu Leu Gln Gln Gly Tyr Lys Val Glu Gly Leu Phe Met | |
| | 85 |
| Lys Asn Trp Glu Glu Asp Asp Gly Glu Glu Tyr Cys Thr Ala Ala Ala | |
| | 100 |
| Asp Leu Ala Asp Ala Gln Ala Val Cys Asp Lys Leu Gly Ile Glu Leu | |
| | 115 |
| His Thr Val Asn Phe Ala Ala Glu Tyr Trp Asp Asn Val Phe Glu Leu | |
| | 130 |
| Phe Leu Glu Glu Tyr Lys Ala Gly Arg Thr Pro Asn Pro Asp Ile Leu | |
| 145 | 150 |
| Cys Asn Lys Glu Ile Lys Phe Lys Ala Phe Leu Glu Phe Ala Ala Glu | |
| | 165 |
| Asp Leu Gly Ala Asp Tyr Ile Ala Thr Gly His Tyr Val Arg Arg Ala | |
| | 180 |
| Asp Val Asn Gly Lys Ser Gln Leu Leu Arg Gly Leu Asp Gly Asn Lys | |
| | 195 |
| Asp Gln Ser Tyr Phe Leu Tyr Thr Leu Ser His Glu Gln Ile Ala Gln | |
| | 210 |
| Ser Leu Phe Pro Val Gly Glu Leu Glu Lys Pro Glu Val Arg Lys Ile | |
| 225 | 230 |
| Ala Glu Asp Leu Asp Leu Ile Thr Ala Lys Lys Lys Asp Ser Thr Gly | |
| | 245 |
| Ile Cys Phe Ile Gly Glu Arg Lys Phe Arg Glu Phe Leu Gly Arg Tyr | |
| | 260 |
| Leu Pro Ala Gln Pro Gly Lys Ile Val Thr Val Asp Gly Asp Glu Ile | |
| | 275 |
| Gly Gln His Gln Gly Leu Met Tyr His Thr Leu Gly Gln Arg Lys Gly | |
| | 290 |
| Leu Gly Ile Gly Gly Thr Lys Glu Gly Ser Glu Asp Pro Trp Tyr Val | |
| 305 | 310 |
| Val Asp Lys Asp Val Glu Asn Asn Ile Leu Val Val Ala Gln Gly His | |
| | 325 |
| Asp His Pro Arg Leu Met Ser Val Gly Leu Ile Ala Gln Gln Leu His | |


```
<210> 7058
<211> 219
<212> PRT
<213> Enterobacter cloacae
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```
<210> 7059
<211> 381
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 7059 | | | | | | | | | | | | | | | |
| Glu | Pro | Ala | Glu | Tyr | Ile | Asn | Met | Asp | Tyr | Gln | Leu | Thr | Leu | Asn | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Asp | Phe | Ile | Glu | Arg | Tyr | Trp | Gln | Lys | Arg | Pro | Val | Val | Leu | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gly | Ile | Ser | Asn | Phe | Ile | Asp | Pro | Ile | Ser | Pro | Asp | Glu | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Leu | Ala | Met | Glu | Asn | Glu | Val | Asp | Ser | Arg | Leu | Val | Ser | His | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |


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Asp Gly Lys Trp Gln Val Ser His Gly Pro Phe Glu Ser Tyr Asp His
65      70      75      80
Leu Gly Glu Asn Asn Trp Ser Leu Leu Val Gln Ala Val Asn Asn Trp
      85      90      95
His Glu Pro Thr Ala Ala Leu Met Arg Pro Phe Arg Ala Leu Pro Asp
      100      105      110
Trp Arg Met Asp Asp Leu Met Ile Ser Phe Ser Val Pro Gly Gly Gly
      115      120      125
Val Gly Pro His Leu Asp Gln Tyr Asp Val Phe Ile Ile Gln Gly Thr
      130      135      140
Gly Arg Arg Arg Trp Arg Val Gly Glu Lys Val Pro Met Lys Gln His
145      150      155      160
Cys Pro His Pro Asp Leu Leu Gln Val Asp Pro Phe Glu Gly Ile Ile
      165      170      175
Asp Glu Glu Leu Glu Pro Gly Asp Ile Leu Tyr Ile Pro Pro Gly Phe
      180      185      190
Pro His Glu Gly Tyr Ser Leu Glu Asn Ser Leu Asn Tyr Ser Val Gly
      195      200      205
Phe Arg Ala Pro Ser Gly Arg Glu Met Ile Ser Gly Phe Ala Asp Tyr
      210      215      220
Val Leu Gln Arg Glu Leu Gly Ser Tyr Arg Tyr Ser Asp Pro Asp Val
225      230      235      240
Pro Ala Arg Glu His Pro Ala Asp Ile Leu Pro Glu Glu Leu Asp Lys
      245      250      255
Leu Arg Gly Met Met Leu Asp Leu Ile Asn Glu Pro Glu His Phe Arg
      260      265      270
Gln Trp Phe Gly Glu Phe Ile Ser Gln Ser Arg His Glu Leu Asp Val
      275      280      285
Ala Pro Pro Glu Pro Pro Tyr Gln Ala Asp Glu Ile Tyr Asp Ala Leu
      290      295      300
Gln Gln Gly Asp Lys Leu Val Arg Leu Gly Gly Leu Arg Val Leu Arg
305      310      315      320
Ile Gly Glu Glu Val Phe Val Asn Gly Glu Arg Leu Asp Ser Pro His
      325      330      335
Arg Pro Ala Leu Glu Ser Ile Ala Ser Gln Met Val Leu Thr Ala Asp
      340      345      350
Thr Phe Gly Asp Ala Leu Asp Asp Pro Ser Phe Leu Ala Met Leu Ala
      355      360      365
Ala Leu Val Asn Ser Gly Tyr Trp Phe Phe Glu Asp
      370      375      380

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<210> 7060

<211> 475

<212> PRT

<213> Enterobacter cloacae

<400> 7060

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Arg Leu Arg Gln Asn Lys Phe Leu Leu Ile Val Asn Leu Pro Glu Leu
1      5      10      15
Arg Ile Met Glu Leu Ser Ser Leu Thr Ala Val Ser Pro Val Asp Gly
      20      25      30
Arg Tyr Gly Asp Lys Val Ser Ala Leu Arg Gly Ile Phe Ser Glu Tyr
      35      40      45
Gly Leu Leu Lys Phe Arg Val Gln Val Glu Val Arg Trp Leu Gln Lys
      50      55      60
Leu Ala Ala Gln Thr Ala Ile Lys Glu Val Pro Ala Phe Asp Ala Lys
65      70      75      80
Ala Asn Asp Tyr Leu Asp Lys Ile Val Ala Glu Phe Ser Glu Glu Asp
      85      90      95
Ala Ala Arg Ile Lys Thr Ile Glu Arg Thr Thr Asn His Asp Val Lys
      100      105      110

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Glu | Tyr | Phe | Leu | Lys | Glu | Lys | Val | Ala | Cys | Val | Pro | Ala | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Ala | Val | Ser | Glu | Phe | Ile | His | Phe | Ala | Cys | Thr | Ser | Glu | Asp | Ile |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Asn | Asn | Leu | Ser | His | Ala | Leu | Met | Leu | Phe | Thr | Ala | Arg | Lys | Glu | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Leu | Pro | Tyr | Trp | Arg | Lys | Ile | Ile | Asp | Ala | Val | Lys | Ala | Leu | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Glu | Tyr | Arg | Asp | Ile | Pro | Leu | Leu | Ser | Arg | Thr | His | Gly | Gln | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Thr | Pro | Ser | Thr | Met | Gly | Lys | Glu | Met | Ala | Asn | Val | Ala | Tyr | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Met | Glu | Arg | Gln | Tyr | Arg | Gln | Leu | Glu | Gln | Val | Glu | Ile | Leu | Gly | Lys |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ile | Asn | Gly | Ala | Val | Gly | Asn | Tyr | Asn | Ala | His | Ile | Ala | Ala | Tyr | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Val | Asp | Trp | His | Gln | Phe | Ser | Glu | Glu | Phe | Val | Thr | Ser | Leu | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Gln | Trp | Asn | Pro | Tyr | Thr | Thr | Gln | Ile | Glu | Pro | His | Asp | Tyr | Ile |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Glu | Leu | Phe | Asp | Cys | Ile | Ala | Arg | Phe | Asn | Thr | Ile | Leu | Ile | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Asp | Arg | Asp | Val | Trp | Gly | Tyr | Ile | Ala | Leu | Asn | His | Phe | Lys | Gln |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Lys | Thr | Ile | Ala | Gly | Glu | Ile | Gly | Ser | Ser | Thr | Met | Pro | His | Lys | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Pro | Ile | Asp | Phe | Glu | Asn | Ser | Glu | Gly | Asn | Leu | Gly | Leu | Ala | Asn |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Val | Leu | Gln | His | Met | Ala | Ser | Lys | Leu | Pro | Val | Ser | Arg | Trp | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Arg | Asp | Leu | Thr | Asp | Ser | Thr | Val | Leu | Arg | Asn | Leu | Gly | Val | Gly | Ile |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Tyr | Ala | Leu | Ile | Ala | Tyr | Gln | Ser | Thr | Leu | Lys | Gly | Val | Ser | Lys |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Leu | Glu | Val | Asn | Arg | Asp | Arg | Leu | Leu | Asp | Glu | Leu | Asp | His | Asn | Trp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Val | Leu | Ala | Glu | Pro | Ile | Gln | Thr | Val | Met | Arg | Arg | Tyr | Gly | Ile |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Glu | Lys | Pro | Tyr | Glu | Lys | Leu | Lys | Glu | Leu | Thr | Arg | Gly | Lys | Arg | Val |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Ala | Glu | Gly | Met | Lys | Gln | Phe | Ile | Asp | Gly | Leu | Ala | Leu | Pro | Glu |
| | | 435 | | | | | 440 | | | | 445 | | | | |
| Glu | Glu | Lys | Ala | Arg | Leu | Lys | Glu | Met | Thr | Pro | Ala | Asn | Tyr | Ile | Gly |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Arg | Ala | Ile | Thr | Met | Val | Asp | Glu | Leu | Lys | | | | | | |
| 465 | | | | | 470 | | | | | 475 | | | | | |

<210> 7061

<211> 99

<212> PRT

<213> Enterobacter cloacae

<400> 7061

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Arg | Leu | Leu | Ala | Gly | Leu | Gly | Gly | Asp | Glu | Ile | Leu | Val | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Ser | His | Ser | Asp | Asp | Asp | Asp | Thr | Arg | Thr | Glu | Ile | Asn | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Lys | Thr | Arg | Leu | Asn | Gly | Leu | Ile | Ala | Gly | Glu | Tyr | Gly | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Ala | Thr | Ile | Leu | Tyr | Pro | Gly | Ala | Ser | Leu | Gly | Val | Val | Ile | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

Asp Pro His Ser Thr Asp Glu Asp Ser Ala Leu Arg Thr Ala Asp Leu
 65 70 75 80
 Ala Met Tyr Gln Asp Lys Lys Gly Lys Ser Lys Thr Gly Phe Val Ala
 85 90 95
 Leu Asp

<210> 7062

<211> 516

<212> PRT

<213> Enterobacter cloacae

<400> 7062

Pro Val Ile Arg Ser Leu His Leu Arg Thr Trp Arg Asp Ser Arg Lys
 1 5 10 15
 Met Lys Lys Ala Ile Ala Val Ala Ile Ile Ser Thr Leu Met Val Val
 20 25 30
 Leu Ser Leu Tyr Ala Val Asn Ala Ile Ile Ala Glu Gln Gln Lys Asn
 35 40 45
 Arg Gln Arg Glu Ile Ser His Thr Leu Leu Ser Tyr Ser Glu Glu Leu
 50 55 60
 Thr Gln Asn Ile Ala Ser Thr Leu Lys Asn Thr Thr Val Gln Gly Cys
 65 70 75 80
 Asp Ser Ala Ser Leu Asn Val Tyr Arg Lys Leu Lys Met Arg Ser Leu
 85 90 95
 Tyr Phe Ala Asp Val Gly Phe Ile Glu Lys Gly Lys Ile Thr Cys Thr
 100 105 110
 Ala Phe Trp Gly Lys Leu Ala Asn Pro Ile Ala Leu Pro Pro Glu Leu
 115 120 125
 His Lys Thr His Asn Gly Phe Ser Leu Ala Gln Phe Ser Gln Lys Asp
 130 135 140
 Phe Phe Ile Gly Asn Ala Thr Ile Tyr Asn His Leu Ile Ile Phe Thr
 145 150 155 160
 Ser Arg Ser Ala Tyr Asp Lys Phe Ala Pro Val Thr Ala Asn Tyr Ser
 165 170 175
 Leu Arg Ser Ser Thr Lys Asp Phe Gly Arg Thr Phe Phe Thr Val Thr
 180 185 190
 Pro Pro Ser Glu Asn Phe Ser Arg Leu Gln Ser Leu Leu Phe Thr Leu
 195 200 205
 Ala Val Thr Glu Cys Ser Thr Arg Trp Asp Leu Cys Val Thr Val Thr
 210 215 220
 His His Asp Ala Gly Leu Ala Ser Leu Ser His Val Val Met Val Leu
 225 230 235 240
 Leu Cys Leu Phe Leu Tyr Phe Ile Trp Val Ser Leu Thr Leu Phe Ser
 245 250 255
 Leu Arg Leu Tyr Glu Asp Arg Arg Ser Leu Glu Arg Thr Leu Val Lys
 260 265 270
 Ala Val Lys Ala Asn Thr Ile Ser Val His Phe Gln Pro Val Ile Arg
 275 280 285
 Val Ala Asp Lys Lys Ile Val Gly Val Glu Val Leu Ser Arg Trp Gln
 290 295 300
 Asp Asn Asn His Lys Glu Val Ser Pro Glu Leu Phe Ile Pro Leu Ile
 305 310 315 320
 Lys Lys Ile Gly Leu Tyr Asn Val Tyr Tyr Gln Asn Met Ile Lys Lys
 325 330 335
 Ser Leu Ala Glu Ile Ala Ala Leu Ala Ala Glu His Gln Leu Met Ile
 340 345 350
 Ser Leu Asn Val Gly Arg Thr Glu Ile Glu Asp Gly Lys Phe Leu Ser
 355 360 365
 Val Leu Arg His Ala Cys Ser Glu Asn Ala Ile Pro Leu Ser Leu Ile
 370 375 380

Lys Val Glu Leu Ser Glu Asn Gly Val Ser Thr Ser Ala Ile Leu Glu
 385 390 395 400
 Glu Phe Cys Glu Glu Leu Lys Ser Ala Gly Val Lys Ile Ser Ile Asp
 405 410 415
 Asp Phe Gly Val Gln Asn Ser Asn Leu Ala Arg Leu Thr Asn Leu Lys
 420 425 430
 Tyr Asp Glu Ile Lys Val Asp Lys Ser Leu Val Asp Gly Ile Ser Glu
 435 440 445
 His Tyr Lys Gln Asp Ile Leu Val Ile Phe Ser Asp Ala Leu Ala Lys
 450 455 460
 Leu Asn Lys Thr Leu Val Phe Glu Gly Val Glu Ser Glu Thr Gln Phe
 465 470 475 480
 Gln Phe Ile Ala Gln Arg Tyr Pro Asp Ala Leu Val Gln Gly Trp Tyr
 485 490 495
 Phe Ser Lys Ser Leu Thr Arg His Asp Leu Ala Arg Leu Leu Ala Asp
 500 505 510
 Ser Ala Arg
 515

<210> 7063

<211> 161

<212> PRT

<213> Enterobacter cloacae

<400> 7063

Gly Glu Leu Met Phe Lys Pro His Val Thr Val Ala Cys Val Val His
 1 5 10 15
 Ala Gln Gly Lys Phe Leu Val Val Glu Glu Thr Ile Asn Gly Lys Ala
 20 25 30
 Leu Trp Asn Gln Pro Ala Gly His Leu Glu Ala Asn Glu Thr Leu Leu
 35 40 45
 Gln Ala Ala Lys Arg Glu Leu Trp Glu Glu Thr Gly Ile Arg Ala Glu
 50 55 60
 Pro Gln His Phe Ile Arg Met His Gln Trp Ile Ala Pro Asp Gln Thr
 65 70 75 80
 Pro Phe Leu Arg Phe Leu Phe Ala Val Glu Leu Asn Glu Thr Cys Ala
 85 90 95
 Thr Glu Pro His Asp Asp Asp Ile Asp Arg Cys Leu Trp Val Thr Ala
 100 105 110
 Glu Glu Ile Leu Asn Ala Pro Asn Leu Arg Ser Pro Leu Val Ala Glu
 115 120 125
 Ser Ile Arg Cys Trp Gln Ser Thr Ala Arg Leu Pro Leu Asp Val Ile
 130 135 140
 Ala Glu Phe Asn Trp Pro Phe Thr Glu Gly Val Asn Gly Gly Gly Ala
 145 150 155 160

<210> 7064

<211> 240

<212> PRT

<213> Enterobacter cloacae

<400> 7064

Ile Ile Ser Val Lys Leu Phe Ile Pro Phe Ile Lys Gly Glu Met Met
 1 5 10 15
 Met Arg Val Leu Val Val Glu Asp Asn Ala Leu Leu Arg His His Leu
 20 25 30
 Lys Val Gln Leu Gln Glu Met Val His Gln Val Asp Asp Ala Glu Asp
 35 40 45
 Ala Lys Glu Ala Asp Tyr Tyr Leu Asn Glu His Leu Pro Asp Ile Ala

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Ile Val Asp Leu Gly Leu Pro Asp Glu Asp Gly Leu Ser Leu Ile Arg | | |
| 65 | 70 | 75 |
| Arg Trp Arg Ser His Asp Val Ser Leu Pro Val Leu Val Leu Thr Ala | | 80 |
| | 85 | 90 |
| Arg Glu Gly Trp Gln Asp Lys Val Glu Val Leu Ser Ala Gly Ala Asp | | 95 |
| | 100 | 105 |
| Asp Tyr Val Thr Lys Pro Phe His Ile Glu Glu Val Ala Ala Arg Met | | 110 |
| | 115 | 120 |
| Gln Ala Leu Leu Arg Arg Asn Ser Gly Leu Ala Ser Gln Val Ile Ser | | 125 |
| | 130 | 135 |
| Leu Pro Pro Phe Gln Val Asp Leu Ser Arg Arg Glu Phe Ser Ile Asn | | 140 |
| 145 | 150 | 155 |
| Asp Glu Val Ile Lys Leu Thr Ala Phe Glu Tyr Thr Ile Met Glu Thr | | 160 |
| | 165 | 170 |
| Leu Ile Arg Asn Asn Gly Lys Val Val Ser Lys Asp Ser Leu Met Leu | | 175 |
| | 180 | 185 |
| Gln Leu Tyr Pro Asp Ala Glu Leu Arg Glu Ser His Thr Ile Asp Val | | 190 |
| | 195 | 200 |
| Leu Met Gly Arg Leu Arg Lys Lys Ile Gln Ala Gln Tyr Pro His Asp | | 205 |
| 210 | 215 | 220 |
| Val Ile Thr Thr Val Arg Gly Gln Gly Tyr Leu Phe Glu Leu Arg | | 225 |
| 225 | 230 | 235 |
| | | 240 |

<210> 7065

<211> 488

<212> PRT

<213> Enterobacter cloacae

<400> 7065

| | |
|---|-----|
| Met Lys Gly Ile Leu Arg His Ile Leu Pro Leu Ser Leu Arg Val Arg | |
| 1 | 5 |
| Phe Leu Leu Ala Thr Ala Ala Val Val Leu Val Leu Ser Leu Ser Tyr | |
| | 20 |
| Gly Met Val Ala Leu Val Gly Tyr Ser Val Ser Phe Asp Lys Thr Thr | |
| | 35 |
| Phe Arg Leu Leu Arg Gly Glu Ser Asn Leu Phe Tyr Thr Leu Ala Lys | |
| 50 | 55 |
| Trp Glu Asn Asn Arg Ile Thr Val Glu Met Pro Glu Asn Leu Asn Gln | |
| 65 | 70 |
| Gln Ser Pro Thr Leu Ala Leu Ile Tyr Asp Glu Lys Gly Lys Leu Leu | |
| | 85 |
| Trp Ala Gln Arg Asp Val Pro Trp Leu Lys Lys Arg Ile Arg Pro Glu | |
| | 100 |
| Trp Leu Lys Thr Asn Gly Phe His Glu Ile Glu Ala Asp Leu Asn Ser | |
| | 115 |
| Thr Ser Ser Leu Leu Arg Asp Arg Ala Leu Gln Ile Lys Leu Asn | |
| 130 | 135 |
| Glu Ile Arg Ala Glu Asp Asp Thr Glu Met Thr His Ser Val Ala | |
| 145 | 150 |
| Ile Asn Leu Tyr Pro Ala Thr Leu Asn Met Pro Gln Leu Thr Ile Val | |
| | 165 |
| Val Ile Asp Thr Ile Pro Val Glu Leu Lys Arg Ser Tyr Met Val Trp | |
| | 180 |
| Asn Trp Phe Val Tyr Val Leu Ala Ala Asn Leu Leu Leu Val Ile Pro | |
| | 195 |
| Leu Leu Trp Val Ala Ala Trp Ser Leu Arg Pro Ile Glu Ser Leu | |
| 210 | 215 |
| Ala Lys Glu Val Arg Glu Leu Glu Glu His His Arg Glu Lys Leu Asn | |
| 225 | 230 |
| Pro Glu Thr Thr Arg Glu Leu Thr Ser Leu Val Arg Asn Leu Asn Arg | |
| | 235 |
| | 240 |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | 250 | | | | | 255 | | | | |
| Leu | Leu | Lys | Ser | Glu | Arg | Glu | Arg | Tyr | Asp | Lys | Tyr | Arg | Thr | Thr | Leu | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Thr | Asp | Leu | Thr | His | Ser | Leu | Lys | Thr | Pro | Leu | Ala | Val | Met | Gln | Ser | | |
| | | 275 | | | | | 280 | | | | | | 285 | | | | |
| Thr | Leu | Arg | Ser | Met | Arg | Ser | Ser | Lys | Met | Ser | Val | Asp | Asp | Ala | Glu | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Pro | Val | Ile | Leu | Glu | Gln | Ile | Ser | Arg | Ile | Ser | Gln | Gln | Ile | Gly | Tyr | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Tyr | Leu | His | Arg | Ala | Ser | Met | Arg | Ser | Gly | Ser | Ala | Leu | Leu | Ser | Arg | | |
| | | | 325 | | | | | | 330 | | | | | 335 | | | |
| Glu | Leu | His | Pro | Val | Ala | Pro | Leu | Leu | Asp | Asn | Leu | Thr | Ser | Ala | Leu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Asn | Lys | Val | Tyr | Gln | Arg | Lys | Gly | Val | Asn | Ile | Ser | Leu | Asp | Ile | Ser | | |
| | 355 | | | | | | 360 | | | | | 365 | | | | | |
| Pro | Glu | Ile | Ser | Phe | Val | Gly | Glu | Lys | Asn | Asp | Phe | Met | Glu | Val | Met | | |
| | 370 | | | | | 375 | | | | 380 | | | | | | | |
| Gly | Asn | Leu | Leu | Asp | Asn | Ala | Cys | Lys | Tyr | Cys | Leu | Glu | Phe | Val | Glu | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Val | Ser | Ala | Arg | Val | Thr | Asp | Asn | Glu | Leu | His | Ile | Ile | Val | Glu | Asp | | |
| | | | 405 | | | | | 410 | | | | | | 415 | | | |
| Asp | Gly | Pro | Gly | Ile | Pro | Arg | Asn | Lys | Arg | Glu | Val | Val | Phe | Asp | Arg | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Gly | Gln | Arg | Ala | Asp | Thr | Leu | Arg | Pro | Gly | Gln | Gly | Val | Gly | Leu | Ser | | |
| | 435 | | | | | | 440 | | | | | 445 | | | | | |
| Val | Ala | Arg | Glu | Ile | Val | Asp | Gln | Tyr | Glu | Gly | Lys | Ile | Glu | Thr | Gly | | |
| | 450 | | | | | 455 | | | | 460 | | | | | | | |
| Glu | Ser | Leu | Leu | Gly | Gly | Ala | Arg | Met | Glu | Val | Ile | Phe | Gly | Arg | Gln | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| His | Pro | Val | Ser | Asn | Asp | Ser | | | | | | | | | | | |
| | | | | 485 | | | | | | | | | | | | | |

<210> 7066

<211> 477

<212> PRT

<213> Enterobacter cloacae

<400> 7066

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Pro | Arg | Cys | Gln | Ile | Ser | Gln | Leu | Leu | Thr | Phe | Ser | Ser | Trp | Leu | Thr | | |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | | | |
| Leu | Phe | Thr | Glu | His | Leu | Lys | Asn | Lys | Pro | Tyr | Thr | Gly | Lys | Val | Asn | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Thr | Met | Thr | Glu | Ile | Ile | Thr | Arg | Lys | Glu | Lys | Ile | Ser | Tyr | Gly | Leu | | |
| | 35 | | | | | 40 | | | | | | 45 | | | | | |
| Gly | Asp | Met | Ala | Ser | His | Ile | Gly | Leu | Asp | Asn | Val | Ile | Ile | Phe | Leu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Thr | Phe | Tyr | Tyr | Thr | Asp | Val | Val | Gly | Leu | Pro | Ala | Ala | Phe | Val | Gly | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Thr | Met | Phe | Leu | Leu | Ala | Arg | Thr | Ala | Asp | Ala | Ile | Ile | Asp | Pro | Ala | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Met | Gly | Tyr | Ile | Ala | Asp | Arg | Thr | Arg | Thr | Arg | Trp | Gly | Lys | Phe | Arg | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Pro | Trp | Met | Leu | Trp | Leu | Ala | Leu | Pro | Phe | Gly | Ala | Ser | Cys | Leu | Leu | | |
| | 115 | | | | | | 120 | | | | | 125 | | | | | |
| Thr | Tyr | Ala | Val | Pro | Ala | Ser | Leu | Asp | Leu | His | Gly | Lys | Met | Ile | Phe | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Ala | Thr | Val | Ser | Tyr | Thr | Leu | Met | Met | Leu | Met | Tyr | Thr | Ala | Ile | Asn | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Ile | Pro | Tyr | Cys | Ser | Met | Gly | Ala | Val | Ile | Thr | Pro | Asp | Asn | Asp | Ala | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Arg | Ile | Ser | Leu | Gln | Ser | Tyr | Arg | Phe | Phe | Leu | Ala | Thr | Leu | Gly | Gly | | |

| | | |
|---|---|---------------------|
| 130 | 135 | 140 |
| Glu Ser Arg Pro Asp | Glu Arg Ile Tyr Gly Met | Gly Gln Tyr Gln Gln |
| 145 | 150 | 155 |
| Pro Trp Leu Asp Leu | Lys Gly Cys Thr Leu Glu Leu Ala Gln Arg Asn | 160 |
| 165 | 170 | 175 |
| Ser Gln Ala Ser Val Pro Phe Met Gln Ser Ser Leu Gly Tyr Gly Leu | 185 | 190 |
| 180 | 200 | 205 |
| Leu Trp Asn Asn Pro Ala Ile Gly Glu Ala Ser Phe Ala Lys Asn Gln | 210 | 215 |
| 210 | 220 | 225 |
| Thr Glu Trp Arg Ala Arg Val Thr Gly Glu Met Asp Tyr Trp Ile Thr | 230 | 235 |
| 225 | 240 | 245 |
| Ala Ala Asp Thr Val Ala Asp Ile Thr Arg Gln Tyr Val Lys Ala Thr | 250 | 255 |
| 230 | 235 | 240 |
| Gly Thr Pro Pro Ala Ala Pro Ala Phe Ile Ser Gly Leu Trp Gln Cys | 260 | 265 |
| 245 | 250 | 255 |
| Lys Leu Arg Tyr Arg Thr Gln Gln Glu Val Leu Glu Val Ala Arg Glu | 265 | 270 |
| 260 | 265 | 270 |
| Tyr Arg Arg Arg Asn Leu Pro Leu Ser Val Met Val Ile Asp Phe Phe | 275 | 280 |
| 275 | 280 | 285 |
| His Trp Pro Asn Gln Gly Thr Trp Cys Phe Asp Pro Val Asp Trp Pro | 290 | 295 |
| 290 | 295 | 300 |
| Asp Pro Glu Gly Met Val Asp Glu Leu Arg Glu Met Gly Ile Ala Leu | 305 | 310 |
| 305 | 310 | 315 |
| Met Val Ser Val Trp Pro Thr Val Glu Ala Arg Ser Pro Leu Tyr Pro | 315 | 320 |
| 325 | 330 | 335 |
| Leu Met Lys Ala Lys Gly Trp Leu Val Ser Ser Glu Arg Gly Val Gln | 340 | 345 |
| 340 | 345 | 350 |
| Val Asn Leu Asp Phe Met Gly Asn Thr Thr Phe Phe Asp Ala Thr His | 355 | 360 |
| 355 | 360 | 365 |
| Pro Glu Ala Arg Lys Phe Val Trp Asp Thr Val Lys Lys Asn Tyr Tyr | 370 | 375 |
| 370 | 375 | 380 |
| Asp Met Gly Ile Lys Leu Phe Trp Leu Asp Glu Ala Glu Pro Glu Tyr | 385 | 390 |
| 385 | 390 | 395 |
| Arg Ala Tyr Asp Phe Asp Asn Tyr Arg Tyr His Ala Gly Pro Val Leu | 405 | 410 |
| 405 | 410 | 415 |
| Glu Val Gly Asn Arg Tyr Pro Arg Asp Phe Ala Gln Gly Phe Tyr Asp | 420 | 425 |
| 420 | 425 | 430 |
| Gly Leu Gln Ala Asn Gly Glu Thr Asp Ile Val Asn Leu Val Arg Cys | 435 | 440 |
| 435 | 440 | 445 |
| Ala Trp Ala Gly Ser Gln Arg Phe Gly Val Leu Ala Trp Ser Gly Asp | 450 | 455 |
| 450 | 455 | 460 |
| Val His Ser Ser Phe His Ala Phe Arg Asn Gln Leu Ala Ala Gly Leu | 465 | 470 |
| 465 | 470 | 475 |
| Asn Met Gly Leu Ala Gly Ile Pro Trp Trp Thr Thr Asp Ile Gly Gly | 485 | 490 |
| 485 | 490 | 495 |
| Phe Gln Gly Gly Asn Val Asn Asp Pro Ala Phe His Glu Leu Leu Ile | 500 | 505 |
| 500 | 505 | 510 |
| Arg Trp Phe Gln Trp Ala Val Phe Thr Pro Val Leu Arg Met His Gly | 515 | 520 |
| 515 | 520 | 525 |
| Tyr Arg Glu Pro Gln Ile Gln Pro Pro Glu Arg Tyr Arg Asp Gly Ile | 530 | 535 |
| 530 | 535 | 540 |
| Pro Gln Cys Asn Ser Gly Ser Pro Asn Glu Leu Trp Ser Tyr Gly Glu | 545 | 550 |
| 545 | 550 | 555 |
| Glu Asn Tyr Ala Ile Met Gln Arg Trp Leu Thr Val Arg Glu Thr Leu | 565 | 570 |
| 565 | 570 | 575 |
| Arg Pro Tyr Ile Asp Ala Leu Tyr Gln Gln Ala His Leu His Gly Asp | 580 | 585 |
| 580 | 585 | 590 |
| Pro Leu Met Arg Pro Leu Phe Trp His Tyr Pro Gln Asp Lys Gln Ser | 595 | 600 |
| 595 | 600 | 605 |
| Trp Ala Cys Glu Asp Gln Tyr Leu Phe Gly Glu Asp Leu Leu Val Ala | 610 | 615 |
| 610 | 615 | 620 |

Pro Val Met Gln Ala Gly Gln Arg Glu Arg Asp Val Trp Leu Pro Thr
 625 630 635 640
 Gly Asn Ser Trp Val Ala Leu Asn Gly Glu Arg Tyr Ala Gly Gly Glu
 645 650 655
 His Ile Arg Val Pro Ala Ala Leu Glu Thr Ile Pro Val Phe Ile Arg
 660 665 670
 Glu Gly Ser Pro Leu Ile Gln Gln Leu Val Asp
 675 680

<210> 7068
 <211> 137
 <212> PRT
 <213> Enterobacter cloacae

<400> 7068
 Ile Gly Trp Ile Lys Ala Gly Cys Tyr Ser Val Leu Ala Glu Arg Arg
 1 5 10 15
 Thr Ala Gly Gly Lys Arg Met Ile Gln Cys Lys Arg Val Tyr Glu Gln
 20 25 30
 Ala Thr Ser Asp Asp Gly Tyr Arg Val Leu Val Asp Arg Leu Trp Pro
 35 40 45
 Arg Gly Ile Lys Lys Thr Asp Leu Ala Cys Asp Glu Trp Cys Lys Ser
 50 55 60
 Leu Thr Pro Ser Ser Glu Leu Arg Lys Ala Phe His Ser Glu Thr Ile
 65 70 75 80
 Asp Phe Thr Ala Phe Ser Glu Ala Tyr Arg Lys Glu Leu Ala Gln His
 85 90 95
 Gln Asp Glu Gly Lys Arg Leu Ala Ala Leu Ala Arg Gln Gln Thr Val
 100 105 110
 Thr Leu Leu Tyr Gly Ala Lys Asn Arg Glu Gln Asn His Ala Arg Val
 115 120 125
 Leu Ala Asp Trp Leu Arg Lys Leu
 130 135

<210> 7069
 <211> 93
 <212> PRT
 <213> Enterobacter cloacae

<400> 7069
 Ser Gly Glu Lys Arg Met Gly Gln Leu Val Thr Leu His Glu Trp Ala
 1 5 10 15
 Ser Gly Pro Asn Gly Phe Lys Tyr Pro Leu Ser Asn Ser Ala Leu Asn
 20 25 30
 Lys Ile Ala Lys Thr Lys Gln Thr Tyr Pro Pro Ala Leu Lys Gln Gly
 35 40 45
 Arg Arg Trp Val Ile Asp Glu Asp Ala Arg Phe Val Gly Met Val Gly
 50 55 60
 Ser Val Asp Ile Ser Ser Ser Leu Ser Asp Lys Ala Arg Gln Leu Val
 65 70 75 80
 Glu Lys Ala Ile Asn Gly Ser Ser Pro Gln Lys Thr
 85 90

<210> 7070
 <211> 171
 <212> PRT
 <213> Enterobacter cloacae

<400> 7070
 Ser Leu Pro Ala Asp Ala Phe Ala Arg Lys Val Ser Arg Leu Thr Ile
 1 5 10 15

Phe Gly Lys Asp Pro Val Met Phe Asp Pro Thr Leu Leu Ile Leu Leu
 20 25 30
 Ala Leu Ala Ala Leu Gly Phe Val Ser His Asn Thr Thr Val Ala Ile
 35 40 45
 Ser Ile Leu Val Leu Ile Ile Val Arg Val Thr Pro Leu Asn Thr Phe
 50 55 60
 Phe Pro Trp Ile Glu Lys Gln Gly Leu Thr Ile Gly Ile Ile Ile Leu
 65 70 75 80
 Thr Ile Gly Val Met Ala Pro Ile Ala Ser Gly Thr Leu Pro Ala Ser
 85 90 95
 Thr Leu Leu His Ser Phe Val Asn Trp Lys Ser Leu Val Ala Ile Ala
 100 105 110
 Val Gly Val Phe Val Ser Trp Leu Gly Gly Arg Gly Val Thr Leu Met
 115 120 125
 Ser Ser Gln Pro Ser Leu Val Ala Gly Leu Leu Val Gly Thr Val Leu
 130 135 140
 Gly Val Ala Leu Phe Arg Gly Val Pro Val Gly Pro Leu Ile Ala Ala
 145 150 155 160
 Gly Leu Val Ser Leu Phe Ile Gly Lys Ser
 165 170

<210> 7071

<211> 237

<212> PRT

<213> Enterobacter cloacae

<400> 7071

Pro Leu Pro His Pro Leu Ser Glu Glu Ser Ile Lys Leu Ile Leu Phe
 1 5 10 15
 Met Phe Tyr Tyr Asp Arg Ser Leu Asn Phe Gln His Asn Met Gln Ile
 20 25 30
 Gln Arg Ser Ser Ala Trp Glu Ser Thr Cys Leu Met Ser Asp Ile Ile
 35 40 45
 Leu Ala Arg Val Ser Glu Thr Leu Ser Thr Glu Gln Ser Leu Asp Ser
 50 55 60
 Leu Val Arg Gln Leu Leu Glu Met Leu Glu Ile Val Thr Asp Met Glu
 65 70 75 80
 Ser Thr Tyr Leu Thr Lys Ile Asp Ile Asn Ala Arg Leu Gln His Ile
 85 90 95
 Leu Tyr Ala Arg Asn Ser Lys Gln Met Gln Ile Pro Glu Gly Phe Ser
 100 105 110
 Val Pro Trp Asp Glu Thr Leu Cys Lys Arg Ala Met Asp Ser Asp Thr
 115 120 125
 Leu Phe Ser Asn Glu Val Pro Asp Arg Trp Pro Glu Cys Glu Ala Ala
 130 135 140
 Lys Ala Leu Gly Ile Thr Thr Tyr Met Ser Val Pro Val His Leu Ala
 145 150 155 160
 Asp Gly Ser Leu Tyr Gly Thr Leu Cys Ala Ala Ser Thr Ala Gln Lys
 165 170 175
 Gln Phe Ser Glu Arg Gly Glu Gln Val Ile Arg Leu Phe Ala Gly Leu
 180 185 190
 Ile Gly Gln Tyr Ile Gln Lys Glu Ser Leu Val Leu Gln Leu Arg Glu
 195 200 205
 Ala Asn Ala Ala Leu Ile Thr His Ser Tyr Thr Asp Ala Leu Thr Gly
 210 215 220
 Leu Pro Asn Arg Arg Ala Ile Phe Glu Asn Leu Thr Thr
 225 230 235

<210> 7072

<211> 381

<212> PRT

<213> Enterobacter cloacae

<400> 7072

Met Ala Ala Arg Pro Arg Lys His Asn Val Lys Ile Pro Asn Leu Tyr
 1 5 10 15
 Cys Lys Leu Asp Lys Arg Thr Ser Lys Ile Tyr Trp Gln Tyr Arg His
 20 25 30
 Pro Val Thr Gly Ser Phe Ile Gly Phe Gly Thr Asp Asp Glu Ala Ala
 35 40 45
 Lys Ala Ala Ala Ile Glu Met Asn Arg Ile Thr Ala Glu Gln Glu Thr
 50 55 60
 Gln Gln Ser Tyr Ala Leu Ile Asp Met Ala Met Lys Ser Ser Gly Lys
 65 70 75 80
 Lys Asp Gln Asp Ile Arg Val Ser Glu Trp Ile Lys Lys Tyr Ile Glu
 85 90 95
 Ile Gln Met Glu Arg Leu Arg Asp Gly Glu Ile Lys Asn Pro Thr Val
 100 105 110
 Lys Ser Arg Arg Leu Cys Ser Gln Ile Leu Ala Asp Arg Val Pro Asn
 115 120 125
 Leu Arg Leu Lys Asp Val Asp Thr Arg Leu Ile Ala Lys Ile Ile Asp
 130 135 140
 Glu Tyr Lys Ala Glu Gly Lys His Arg Met Gly Gln Leu Ile Arg Ser
 145 150 155 160
 Val Leu Asn Asp Val Phe Lys Glu Ala Gln His Ala Gly Glu Val Asp
 165 170 175
 Pro Gly Tyr Asn Pro Ala Leu Ala Val Lys Asn Pro Ile Ala Lys Val
 180 185 190
 Lys Arg Ser Arg Leu Ser Ile Glu Gln Trp Lys Leu Ile Phe Glu Ser
 195 200 205
 Ala Gly Ser Leu Pro Pro Cys Ala Gln Asn Ser Met Leu Leu Ala Leu
 210 215 220
 Val Thr Gly Gln Arg Ile Gly Asp Ile Val Glu Met Lys Phe Ser Asp
 225 230 235 240
 Ile Trp Asp Asn His Leu His Val Thr Gln Asn Lys Thr Gly Met Lys
 245 250 255
 Leu Ala Ile Pro Leu Asn Leu Arg Cys Asp Ala Ile Gly Leu Thr Leu
 260 265 270
 Ala Asp Val Ile Ser Lys Cys Arg Asp Arg Val Val Ser Pro Tyr Leu
 275 280 285
 Ile His His Val Lys His His Ala Tyr Gly Lys Ala Gly Ser His Val
 290 295 300
 Pro Glu Lys Thr Ile Ser Arg Tyr Phe Lys Glu Ala Arg Asp Lys Ala
 305 310 315 320
 Asn Ile Thr Trp Pro Lys Asp Cys Thr Ala Leu Pro Pro Phe His Glu
 325 330 335
 Gln Arg Ser Leu Ser Ser Arg Thr Tyr Lys Ala Gln Gly Ile Asp Val
 340 345 350
 Lys Thr Leu Leu Gly His Lys Thr Glu Ala Met Ser Val Met Tyr Gly
 355 360 365
 Asp Asp Arg Gly Leu Glu Trp Lys Lys Val Val Ile
 370 375 380

<210> 7073

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 7073

Gln Ala Thr Tyr Trp Gln Ile Thr Gly Glu Ile Val Met Ser Asp Asp
 1 5 10 15
 Val Thr Gly Thr Thr Thr His Gln Arg Leu Ile Ser Leu Leu Thr Glu


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<210> 7074
<211> 399
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|-----|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| Glu 1 | Thr | Ile | Met | Thr 5 | Thr | Ala | Ile | Gln | Pro 10 | Ser | Gly | Lys | Gln | Gly 15 | Ala |
| Leu | Leu | Val | Ala 20 | Gly | Ile | Leu | Met 25 | Ile | Ala | Thr | Thr | Leu | Arg 30 | Val | Thr |
| Phe | Thr | Gly 35 | Val | Ala | Pro | Leu | Leu 40 | Asp | Thr | Ile | Arg | Gln 45 | Asp | Tyr | Gly |
| Leu | Ser 50 | Thr | Ala | Gln | Thr | Gly 55 | Leu | Leu | Thr | Thr | Leu | Pro 60 | Leu | Leu | Ala |
| Phe 65 | Ala | Phe | Ile | Ser 70 | Pro | Leu | Ala | Ala | Gly | Val 75 | Ala | Arg | Arg | Leu | Gly 80 |
| Met | Glu | Arg | Ser 85 | Leu | Phe | Ile | Ala | Leu | Leu 90 | Leu | Ile | Cys | Ile | Gly 95 | Ile |
| Gly | Val | Arg | Ser 100 | Leu | Pro | Ser | Ala | Ala 105 | Leu | Leu | Phe | Ile | Gly 110 | Thr | Ala |
| Ile | Val | Gly 115 | Cys | Gly | Ile | Ala | Leu | Gly 120 | Asn | Val | Leu | Leu 125 | Pro | Gly | Leu |
| Ile | Lys 130 | Arg | Asp | Phe | Pro | Gly 135 | Gln | Val | Ala | Lys | Leu 140 | Thr | Gly | Ala | Tyr |
| Ser 145 | Leu | Thr | Met | Gly 150 | Ala | Ala | Ala | Ala | Ala | Gly 155 | Ser | Ala | Leu | Ile | Val 160 |
| Pro | Leu | Ser | Leu 165 | Gly | Ser | Gly | Gly | Trp | His 170 | Gly | Ala | Leu | Leu 175 | Met | Leu |
| Met | Phe | Phe 180 | Pro | Leu | Val | Ala | Leu | Leu 185 | Leu | Trp | Leu | Pro | Gln 190 | Trp | Arg |
| Gln | Arg | Pro 195 | Ala | Ala | Thr | Leu | Thr 200 | Gly | Ala | Gly | Ala | Leu 205 | His | Asn | Arg |
| Ala | Ile 210 | Trp | Arg | Ser | Ala | Leu | Ala 215 | Trp | Gln | Val | Thr 220 | Leu | Phe | Met | Gly |
| Ile 225 | Asn | Ser | Leu | Ile 230 | Tyr | Tyr | Val | Ile | Ile | Gly 235 | Trp | Leu | Pro | Ala | Ile 240 |
| Leu | Leu | Ser | His 245 | Gly | Tyr | Ser | Glu | Thr | Gln 250 | Ala | Gly | Ser | Met | His | Gly 255 |
| Leu | Leu | Gln | Leu | Ala | Thr | Ala | Val | Pro | Gly | Leu | Ala | Ile | Pro | Leu | Ile |


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<210> 7075
<211> 251
<212> PRT
<213> Enterobacter cloacae
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<210> 7076
<211> 89
<212> PRT
<213> Enterobacter cloacae
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<400> 7076

Arg Ile Met Ile Met Lys Tyr Leu Leu Leu Ala Leu Val Val Pro Leu
 1 5 10 15
 Ala Ala Cys Ser Thr Lys Thr Thr Pro Pro Asp Ala Pro Gln Pro Pro
 20 25 30
 His Ala Ile Gly Met Ala Asn Pro Ala Ser Val Tyr Cys Leu Glu Lys
 35 40 45
 Gly Gly Glu Gln Ile Pro Val Gln Ser Pro Gln Gly Val Arg Thr Glu
 50 55 60
 Cys Lys Leu Pro Gly Gly Glu Val Ile Asp Glu Trp Asp Leu Tyr Arg
 65 70 75 80
 Arg Asp His Pro Gln Pro Thr Arg
 85

<210> 7077

<211> 275

<212> PRT

<213> Enterobacter cloacae

<400> 7077

Asn Asp Ser Leu Ser Leu Ile Ser Asp Asn Phe Met Tyr Gly Leu Gly
 1 5 10 15
 Leu Asp Gly Tyr Asp Pro Asp Ser Gln His Asp Ala Ala Val Ala Phe
 20 25 30
 Arg Ile Arg Val Val Ala Gln Glu Gln Phe Ile Pro Leu His Gln His
 35 40 45
 Arg Lys Gly Gln Leu Ile Met Ala Leu Gly Gly Ala Ile Thr Cys Glu
 50 55 60
 Val Glu Ser Ala Met Leu Met Val Pro Pro Gln Tyr Ala Val Trp Ile
 65 70 75 80
 Pro Gly Gln Thr Pro His Ser Asn Lys Ala Thr Pro Gly Ala Gln Leu
 85 90 95
 Cys Leu Leu Phe Ile Glu Pro Gly Ala Leu Glu Leu Pro Thr Arg Thr
 100 105 110
 Cys Thr Leu Lys Ile Ser Pro Leu Val Arg Glu Leu Val Leu Ala Leu
 115 120 125
 Ala Asp Arg Ser Arg Glu Glu Leu Pro Leu Pro Ala Thr Gly Arg Leu
 130 135 140
 Val Asp Val Leu Phe Asp Glu Leu Pro Leu Gln Pro Gln Glu His Leu
 145 150 155 160
 Gln Leu Pro Val Ser Pro His Pro Lys Ile Arg Leu Met Ser Glu Thr
 165 170 175
 Met Ala Asn Glu Pro Ala Ala Trp Gln Thr Leu Ala Gln Trp Ala Ser
 180 185 190
 His Phe Ala Met Ser Glu Arg Asn Leu Ala Arg Leu Val Lys Glu
 195 200 205
 Thr Gly Leu Ser Phe Arg Arg Trp Arg His Gln Leu Gln Leu Ile Val
 210 215 220
 Ala Leu Gln Phe Leu Ile Gly Gly Lys Ser Val Gln Gln Ala Ala Gln
 225 230 235 240
 Ala Leu Gly Tyr Asp Ser Thr Thr Ala Phe Ile Thr Met Phe Lys Lys
 245 250 255
 Gly Leu Gly Gln Thr Pro Ala Arg Tyr Ile Ala Ser Leu Thr Thr Thr
 260 265 270
 Ser Arg
 275

<210> 7078

<211> 189

<212> PRT

<213> Enterobacter cloacae

<400> 7078

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Thr Gln Arg Pro Ala Asp Cys Thr Phe Thr Asn His Ala Phe Asp Ser
1      5      10      15
Leu Ile Pro Ser Leu Lys Phe Lys Lys Tyr Asp Ala Val Ile Ser Gly
20      25      30
Met Asp Ile Thr Pro Glu Arg Ser Lys Gln Val Ala Phe Thr Asp Pro
35      40      45
Tyr Tyr Ala Asn Ser Ala Val Val Ile Ala Lys Lys Gly Ala Tyr Lys
50      55      60
Ser Phe Asp Glu Leu Lys Gly Lys Arg Ile Gly Met Glu Asn Gly Thr
65      70      75      80
Thr His Gln Lys Tyr Leu Gln Asp Lys His Pro Glu Val Lys Thr Val
85      90      95
Ala Tyr Asp Ser Tyr Gln Asn Ala Ile Ile Asp Leu Lys Asn Gly Arg
100     105     110
Ile Asp Gly Val Phe Gly Asp Thr Ala Val Val Asn Glu Trp Leu Lys
115     120     125
Thr Asn Pro Gln Leu Gly Thr Ala Thr Glu Lys Val Thr Asp Pro Gln
130     135     140
Tyr Phe Gly Thr Gly Leu Gly Ile Ala Val Arg Pro Asp Asn Lys Ala
145     150     155     160
Leu Leu Glu Lys Leu Asn Gly Ala Leu Lys Ala Ile Lys Ala Asp Gly
165     170     175
Thr Tyr Gln Lys Ile Ser Glu Gln Trp Phe Pro Gln
180     185

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<210> 7079

<211> 111

<212> PRT

<213> Enterobacter cloacae

<400> 7079

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Arg Gln Val Ile Val His Tyr Arg Cys Tyr Ser Pro Ser Gly Leu Phe
1      5      10      15
Phe Glu Glu Arg Glu Met Phe Ala Val Ile Phe Gly Arg Pro Gly Cys
20      25      30
Pro Tyr Cys Val Arg Ala Lys Glu Leu Ala Glu Lys Leu Thr Glu Glu
35      40      45
Arg Asp Asp Phe Asn Phe Arg Tyr Val Asp Ile His Ala Glu Gly Ile
50      55      60
Thr Lys Ala Asp Leu Glu Lys Thr Val Gly Lys Pro Val Glu Thr Val
65      70      75      80
Pro Gln Ile Phe Leu Asp Gln Lys His Ile Gly Gly Cys Thr Asp Phe
85      90      95
Glu Ala Tyr Ala Lys Glu His Leu Gly Leu Phe Ala Ala Gln
100     105     110

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<210> 7080

<211> 294

<212> PRT

<213> Enterobacter cloacae

<400> 7080

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Leu Arg Ile Pro Val Asn Tyr Ile Asp Gln Phe Ile Asn Phe Val Ser
1      5      10      15
Thr Leu Tyr Thr Pro Arg Arg Ala Cys Thr Thr Leu Phe Met Ile Cys
20      25      30
Gly Gly Val Leu Ser Leu Cys Lys Ile Leu Pro Leu Leu His Leu Trp
35      40      45

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Leu Thr Thr Ala Ile Lys Pro Ile Ala Gln Asn Tyr Glu Thr Tyr Ile
 50      55      60
Leu Leu Ile Ser Leu Val Ile Gly Val Ser Leu Gly Ile Val Val Phe
65      70      75      80
Ser Ile Val Asp Leu Ile Val Leu Thr Ile Tyr Glu His Leu Ile Ser
      85      90      95
Lys Lys Lys Lys Ser Gln Ser Glu Leu Lys Ala Ile Lys Glu Lys Asn
      100      105      110
Ile Arg Asp Glu Val Ile Phe Ser Asn Phe Lys Thr Ala Tyr Phe His
      115      120      125
Leu Ser Ile Asp Lys Ile Asn Ile Ile Arg Ser Leu Ile Thr Phe Pro
      130      135      140
Ser Leu Ser Phe His Ser Glu His Glu Asp Val Lys Phe Leu Glu Lys
      145      150      155      160
Ser Gly Trp Ile Glu Ala Leu Thr Tyr Ile Ser Asp Glu Glu Lys Val
      165      170      175
Tyr Gln Leu Asn Gln Thr Ile Arg Leu Tyr Ala Asp Asp Arg Trp Asn
      180      185      190
Glu Glu Val Asn Phe Asn Thr Asp His Phe His Ser Phe Asp Ala Glu
      195      200      205
Thr Ala Ile Ser Ile Ile Asn Ala Met Ser Asp Val Lys Ile Lys Ala
      210      215      220
Glu Leu Asp Glu Phe Asn Phe Ser Phe Tyr Lys Ser Asp Ile Glu Lys
      225      230      235      240
Cys Phe Glu Val Ser Glu Phe Thr Glu Thr Leu Tyr Ser Leu Arg Phe
      245      250      255
Lys Glu Arg Tyr Glu Lys Lys Phe Ser Glu Leu His Leu Lys Pro Phe
      260      265      270
Arg Ser Glu Arg Leu Phe Ser Ile Lys Val Arg Glu Asn Ile Pro Asp
      275      280      285
Leu Asp Ile Pro Phe
      290

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<210> 7081

<211> 601

<212> PRT

<213> Enterobacter cloacae

<400> 7081

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Cys Leu Gly Tyr Leu Ser Gly Ser Arg Glu Met Gln Ser Asp Ser Leu
 1      5      10      15
Thr Leu Lys Thr Val Ala Gln Ile Val Leu Ser Phe Asn Asn Leu Leu
      20      25      30
Val Asn Lys Lys Leu Ala Ser Val Asn Ile Asn Val Ala Asp Leu Leu
      35      40      45
Asn Gly Asn Tyr Ile Leu Leu Leu Phe Val Val Leu Ala Leu Gly Leu
      50      55      60
Cys Leu Gly Lys Leu Arg Leu Gly Ser Val Gln Leu Gly Asn Ser Ile
      65      70      75      80
Gly Val Leu Val Val Ser Leu Leu Leu Gly Gln Gln His Phe Ser Ile
      85      90      95
Asn Thr Asp Ala Leu Asn Leu Gly Phe Met Leu Phe Ile Phe Cys Val
      100      105      110
Gly Val Glu Ala Gly Pro Asn Phe Phe Ser Ile Phe Phe Arg Asp Gly
      115      120      125
Lys Asn Tyr Leu Met Leu Ala Leu Val Met Val Gly Ser Ala Leu Leu
      130      135      140
Ile Ala Leu Gly Leu Gly Lys Leu Phe Gly Trp Asp Ile Gly Leu Thr
      145      150      155      160
Ala Gly Met Leu Ala Gly Ser Met Thr Ser Thr Pro Val Leu Val Gly
      165      170      175

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| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ala | Gly | Asp | Thr | Leu | Arg | His | Ser | Gly | Met | Ala | Gly | Thr | Pro | Leu | Ser | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ser | Ala | Leu | Asp | Asn | Leu | Ser | Leu | Gly | Tyr | Ala | Leu | Thr | Tyr | Leu | Ile | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Gly | Leu | Val | Ser | Leu | Ile | Val | Gly | Ala | Arg | Tyr | Leu | Pro | Lys | Leu | Gln | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| His | Gln | Asp | Leu | Gln | Thr | Ser | Ala | Gln | Thr | Ile | Ala | Arg | Glu | Arg | Gly | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Leu | Asp | Thr | Asp | Ser | Lys | Arg | Lys | Val | Tyr | Leu | Pro | Val | Ile | Arg | Ala | | |
| | | | 245 | | | | | | 250 | | | | | 255 | | | |
| Tyr | Arg | Val | Gly | Pro | Glu | Leu | Val | Ala | Trp | Thr | Asp | Gly | Lys | Asn | Leu | | |
| | | 260 | | | | | | 265 | | | | | 270 | | | | |
| Arg | Glu | Leu | Gly | Ile | Tyr | Arg | Gln | Thr | Gly | Cys | Tyr | Ile | Glu | Arg | Ile | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Arg | Arg | Asn | Gly | Ile | Leu | Ala | Asn | Pro | Asp | Gly | Asp | Ala | Val | Leu | Gln | | |
| | | 290 | | | | 295 | | | | | 300 | | | | | | |
| Met | Gly | Asp | Asp | Ile | Ala | Leu | Val | Gly | Tyr | Pro | Asp | Ala | His | Ala | Arg | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Leu | Asp | Pro | Ser | Phe | Arg | Asn | Gly | Lys | Glu | Val | Phe | Asp | Arg | Asp | Leu | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Leu | Asp | Met | Arg | Ile | Val | Thr | Glu | Glu | Ile | Val | Val | Lys | Asn | His | Asn | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Ala | Val | Gly | Arg | Arg | Leu | Ala | Gln | Leu | Lys | Leu | Thr | Asp | His | Gly | Cys | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Phe | Leu | Asn | Arg | Val | Ile | Arg | Ser | Gln | Ile | Glu | Met | Pro | Ile | Asp | Asp | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Asn | Val | Val | Leu | Asn | Lys | Gly | Asp | Val | Leu | Gln | Val | Ser | Gly | Asp | Ala | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Arg | Arg | Val | Lys | Thr | Val | Ala | Asp | Arg | Ile | Gly | Phe | Ile | Ser | Ile | His | | |
| | | | 405 | | | | | | 410 | | | | | 415 | | | |
| Ser | Gln | Val | Thr | Asp | Leu | Leu | Ala | Phe | Cys | Ala | Phe | Phe | Ile | Val | Gly | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Leu | Met | Ile | Gly | Met | Ile | Thr | Phe | Gln | Phe | Ser | Asn | Phe | Ser | Phe | Gly | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Ile | Gly | Asn | Ala | Ala | Gly | Leu | Leu | Phe | Ala | Gly | Ile | Met | Leu | Gly | Phe | | |
| | 450 | | | | 455 | | | | | | 460 | | | | | | |
| Leu | Arg | Ala | Asn | His | Pro | Thr | Phe | Gly | Tyr | Ile | Pro | Gln | Gly | Ala | Leu | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Asn | Met | Val | Lys | Glu | Phe | Gly | Leu | Met | Val | Phe | Met | Ala | Gly | Val | Gly | | |
| | | | 485 | | | | | | 490 | | | | | 495 | | | |
| Leu | Ser | Ala | Gly | Ser | Gly | Ile | Gly | Asn | Gly | Leu | Gly | Ala | Val | Gly | Trp | | |
| | | 500 | | | | | | 505 | | | | | 510 | | | | |
| Gln | Met | Leu | Val | Ser | Gly | Leu | Ile | Val | Ser | Leu | Val | Pro | Val | Val | Ile | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Cys | Phe | Leu | Phe | Gly | Ala | Tyr | Val | Leu | Arg | Met | Asn | Arg | Ala | Leu | Leu | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Phe | Gly | Ala | Met | Met | Gly | Ala | Arg | Thr | Cys | Ala | Pro | Ala | Met | Glu | Ile | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Ile | Ser | Asp | Thr | Ala | Arg | Ser | Asn | Ile | Pro | Ala | Leu | Gly | Tyr | Ala | Gly | | |
| | | | 565 | | | | | | 570 | | | | | 575 | | | |
| Thr | Tyr | Ala | Ile | Ala | Asn | Val | Leu | Leu | Thr | Leu | Ala | Gly | Thr | Leu | Ile | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |
| Ile | Ile | Ile | Trp | Pro | Gly | Leu | Gly | | | | | | | | | | |
| | | 595 | | | | | 600 | | | | | | | | | | |

<210> 7082

<211> 160

<212> PRT

<213> Enterobacter cloacae

<400> 7082

Pro Lys Val Gly Trp Phe Ala Arg Arg Lys Pro Ser Met Ile Pro Ala
 1 5 10 15
 Asn Ser Arg Pro Ala Ala Leu Pro Met Pro Lys Leu Lys Leu Leu Asn
 20 25 30
 Trp Lys Val Ile Ile Pro Ile Ile Arg Pro Thr Met Lys Lys Ala Gln
 35 40 45
 Lys Ala Asn Arg Ser Val Thr Trp Leu Trp Ile Glu Ile Lys Pro Ile
 50 55 60
 Arg Ser Ala Thr Val Leu Thr Arg Arg Ala Ser Pro Leu Thr Cys Asn
 65 70 75 80
 Thr Ser Pro Leu Leu Ser Thr Thr Leu Ser Ser Ile Gly Ile Ser Ile
 85 90 95
 Trp Leu Arg Ile Thr Arg Leu Arg Lys Gln Pro Trp Ser Val Ser Phe
 100 105 110
 Ser Cys Ala Arg Arg Arg Pro Thr Ala Leu Trp Phe Phe Thr Thr Ile
 115 120 125
 Ser Ser Val Thr Ile Arg Met Ser Ser Arg Ser Arg Ser Asn Thr Ser
 130 135 140
 Phe Pro Leu Arg Lys Leu Gly Ser Arg Arg Ala Trp Ala Ser Gly
 145 150 155 160

<210> 7083

<211> 176

<212> PRT

<213> Enterobacter cloacae

<400> 7083

Gln Ser Val Ser Leu Ile Val Ile Ala Thr Asp Ser His Leu Leu Ser
 1 5 10 15
 His Asp Phe Cys Ala Cys Phe Gly Lys Asp Cys Arg Ile Ala Leu Ser
 20 25 30
 Asp Trp Ala Ser Thr Gly Arg Phe Leu Tyr Leu Ile Glu Ile Ser Gln
 35 40 45
 Glu Asp Ser Leu Asn Phe Lys Arg Asn Trp Ala Gly Val Ile Ser Cys
 50 55 60
 Phe Leu Leu Phe Thr Val Val Cys Met Ser Leu Ala Phe Asn Val Lys
 65 70 75 80
 Gly Ala Phe Arg Ala Ser Gly His Pro Glu Leu Gly Leu Leu Phe Phe
 85 90 95
 Ile Leu Pro Gly Val Val Ala Gly Phe Leu Ser Arg Lys Gly Glu Val
 100 105 110
 Val Met Pro Leu Ile Gly Ala Met Leu Ala Ala Pro Leu Cys Leu Leu
 115 120 125
 Leu Met Arg Val Leu Phe Leu Ser Ser Arg Ser Val Trp Gln Glu Val
 130 135 140
 Ala Trp Leu Leu Ser Gly Val Phe Trp Cys Ala Leu Gly Ala Leu Cys
 145 150 155 160
 Phe Leu Phe Thr Arg Ser Leu Leu Gln Gln Arg Lys His Arg Lys
 165 170 175

<210> 7084

<211> 362

<212> PRT

<213> Enterobacter cloacae

<400> 7084

Arg Val Thr Ala Thr Thr Ala Ala Thr Pro Gly Ala Thr Ile Phe Val
 1 5 10 15
 Ala Pro Leu Ser Arg Arg Thr Ala Arg Ser Phe Ser Thr Thr Cys Thr
 20 25 30
 Asn Arg Ala Gly Gln Arg Gly Ser Pro Phe Leu Leu Arg Leu Val Tyr


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<210> 7085
<211> 171
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Gln | Arg | Phe | Tyr | Leu | Arg | Gly | Cys | Thr | Ala | Met | Asp | Leu | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Val | Pro | Thr | Leu | Asp | Thr | Leu | Arg | Gln | Trp | Leu | Asp | Asp | Ala | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Thr | Phe | Phe | Glu | Cys | Asp | Ser | Cys | Gln | Ala | Leu | His | Leu | Pro | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Gln | Asn | Phe | Asp | Gly | Ile | Phe | Asp | Ala | Lys | Ile | Asp | Leu | Ile | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Val | Ile | Leu | Phe | Ser | Ala | Leu | Ala | Glu | Val | Lys | Pro | Ser | Ala | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Ala | Leu | Ala | Ser | Asp | Leu | Ser | Ala | Ile | Asn | Ala | Ser | Ser | Leu | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Lys | Ala | Phe | Leu | Asp | Ile | Gln | Asp | Asp | Asn | Leu | Pro | Lys | Leu | Val |

Cys Ala Ala Tyr Asp Ala Ala Leu Phe Phe Arg Glu Val Lys Thr Leu
 1 5 10 15
 Gly Phe Leu Gln Lys Thr Arg His Ser His Ala Arg Pro Asn Val Pro
 20 25 30
 Ala Leu Val Gln Val Ala Ala Leu Ala Ile Ile Met Ile Arg Cys Leu
 35 40 45
 Asp Val Leu Met Ile Met Asn Thr Leu Gly Pro Arg Gly Met Gly Glu
 50 55 60
 Phe Ile His Arg Ser Ala Gln Thr Trp Asn Leu Thr Leu Val Phe Leu
 65 70 75 80
 Ser Ser Leu Met Leu Val Phe Ile Glu Ile Tyr Cys Ala Phe Ser Leu
 85 90 95
 Val Lys Gly Arg Asn Trp Ala Arg Trp Val Tyr Leu Leu Thr Gln Ile
 100 105 110
 Thr Ala Ala Gly Tyr Leu Trp Ala Ala Ser Leu Gly Tyr Gly Tyr Pro
 115 120 125
 Glu Leu Phe Ser Ile Pro Gly Glu Ser Arg Arg Glu Ile Phe His Ser
 130 135 140
 Leu Val Met Gln Lys Leu Pro Asp Met Leu Val Leu Phe Leu Leu Phe
 145 150 155 160
 Ala Pro Ala Ser Ser Arg Arg Phe Phe Arg Leu Gln
 165 170

<210> 7088

<211> 514

<212> PRT

<213> Enterobacter cloacae

<400> 7088

Lys Lys Met Pro Pro Ser Arg Arg Ser Phe Ala Pro Ser Gly Ala Lys
 1 5 10 15
 Ala Thr Asn Ser Arg Ser Arg Ile Met Met Arg Arg Phe Ser Leu Ser
 20 25 30
 Gln Arg Leu Thr Leu Leu Phe Thr Val Leu Leu Leu Cys Ala Thr
 35 40 45
 Val Ala Cys Ala Val Gln Leu Tyr Ile Ser Met Gln Tyr Gly Asn Ala
 50 55 60
 Met Val Gln Arg Leu Ser Gly Gly Leu Ala Gln Gln Ile Val Gln Arg
 65 70 75 80
 Glu Ala Ile Leu Asp Ser Gln Gly Arg Val Asp Arg Ser Ala Leu Lys
 85 90 95
 Pro Leu Phe Asp Arg Leu Met Thr Phe Asn Pro Ser Val Glu Leu Tyr
 100 105 110
 Val Val Ser Pro Asp Gly Asp Ile Leu Ala Asp Ala Ala Pro Pro Gly
 115 120 125
 His Ile Gln Arg Gln Lys Ile Asp Leu Ala Pro Ile Gln Asn Phe Leu
 130 135 140
 Ser Gly Thr Val Met Pro Val Phe Gly Asp Asp Pro Arg Ser Gln Asn
 145 150 155 160
 Lys Lys Val Phe Ser Ala Thr Pro Leu Arg Gln Asp Gly Glu Leu Lys
 165 170 175
 Gly Tyr Leu Tyr Ile Ile Leu Gln Gly Glu Glu Ser Asn Ala Leu Ala
 180 185 190
 Glu Met Ala Trp His Lys Ala Leu Trp Ser Thr Ala Leu Trp Ser Met
 195 200 205
 Leu Leu Val Ala Leu Phe Gly Leu Leu Ala Gly Val Leu Leu Trp Tyr
 210 215 220
 Trp Val Thr Arg Pro Val Lys Glu Leu Thr Leu Asp Val Ala Gly Leu
 225 230 235 240
 Glu Gln Asp Ser Ile Ser Ala Ile Lys Gln Leu Ala Ala Gln Pro Leu
 245 250 255

Glu Pro Ala Gly Gln Asp Glu Val Ala Ile Leu Arg Asn Thr Phe Ile
 260 265 270
 Glu Leu Ala Arg Lys Ile Thr Ser Gln Trp Asp Arg Leu Ala Asp Ser
 275 280 285
 Asp Arg Gln Arg Arg Glu Phe Ile Ala Asn Ile Ser His Asp Leu Arg
 290 295 300
 Thr Pro Leu Thr Ser Leu Leu Gly Tyr Leu Glu Thr Leu Ser Leu Lys
 305 310 315 320
 Ser Ala Thr Leu Ser Pro Gln Glu His Gln Gln Tyr Leu Ala Thr Ala
 325 330 335
 Leu Arg Gln Gly Gln Lys Val Arg His Leu Ser Gln Gln Leu Phe Glu
 340 345 350
 Leu Ala Arg Leu Glu His Gly Gly Ile Lys Pro Gln Arg Glu Arg Phe
 355 360 365
 Ala Met Ala Glu Leu Ile Ser Asp Val Ala Gln Lys Phe Glu Leu Thr
 370 375 380
 Ala Arg Thr Arg Glu Val Asn Leu Arg Ile Asp Val Pro Gly Arg Leu
 385 390 395 400
 Pro Leu Val Asn Ala Asp Val Ser Met Ile Glu Arg Val Val Thr Asn
 405 410 415
 Leu Leu Asp Asn Ala Ile Arg His Thr Pro Ser Gly Gly Glu Ile Arg
 420 425 430
 Leu Ala Val Trp Gln Glu Asn Glu Arg Leu Gln Val Glu Val Ala Asp
 435 440 445
 Asn Gly Thr Gly Val Asp Ala Ser Leu Arg Asp Asp Leu Phe Gln Arg
 450 455 460
 Pro Ser Ala Leu Asn Pro Gln Ala Ser Arg Glu Asn Arg Gly Gly Leu
 465 470 475 480
 Gly Leu Leu Ile Val Lys Arg Met Leu Glu Leu His Gly Gly Gly Ile
 485 490 495
 Arg Leu Met Glu Ser Val Ser Gly Ala Arg Phe Arg Phe Phe Val Pro
 500 505 510
 Leu

<210> 7089

<211> 406

<212> PRT

<213> Enterobacter cloacae

<400> 7089

Ala Gly Gln Ala Leu Ala Pro Pro Gly Asp Ala His Pro Asp Gly Ala
 1 5 10 15
 Phe Ala Pro Val Leu Ile Tyr Ala Gly Glu His Pro Val Asn Asp Ala
 20 25 30
 Ile Pro Arg Pro Gln Ala Lys Val Arg Lys Ala Leu Thr Pro Leu Leu
 35 40 45
 Glu Ile Arg Asn Leu Thr Lys Ser Phe Asp Gly Gln His Ala Val Asp
 50 55 60
 Asp Val Ser Leu Thr Ile Tyr Lys Gly Glu Ile Phe Ala Leu Leu Gly
 65 70 75 80
 Ala Ser Gly Cys Gly Lys Ser Thr Leu Leu Arg Met Leu Ala Gly Phe
 85 90 95
 Glu Gln Pro Thr Ala Gly Gln Ile Val Leu Asp Gly Val Asp Leu Ser
 100 105 110
 Ser Val Pro Pro Tyr Gln Arg Pro Ile Asn Met Met Phe Gln Ser Tyr
 115 120 125
 Ala Leu Phe Pro His Met Thr Val Glu Gln Asn Ile Ala Phe Gly Leu
 130 135 140
 Lys Gln Asp Lys Leu Pro Lys Ala Glu Ile Thr Ala Arg Val Ala Glu
 145 150 155 160

Met Leu Ser Leu Val His Met Gln Glu Phe Ala Lys Arg Lys Pro His
 165 170 175
 Gln Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Leu Ala Arg Ser Leu
 180 185 190
 Ala Lys Arg Pro Lys Leu Leu Leu Asp Glu Pro Met Gly Ala Leu
 195 200 205
 Asp Lys Lys Leu Arg Asp Arg Met Gln Leu Glu Val Val Asp Ile Leu
 210 215 220
 Glu Arg Val Gly Val Thr Cys Val Met Val Thr His Asp Gln Glu Glu
 225 230 235 240
 Ala Met Thr Met Ala Gly Arg Ile Ala Ile Met Asn Arg Gly Lys Phe
 245 250 255
 Val Gln Ile Gly Glu Pro Glu Glu Ile Tyr Glu His Pro Thr Thr Arg
 260 265 270
 Tyr Ser Ala Glu Phe Ile Gly Ser Val Asn Val Phe Glu Gly Leu Leu
 275 280 285
 Lys Glu Arg Gln Asp Asp Gly Leu Val Ile Glu Ser Pro Gly Leu Val
 290 295 300
 His Pro Leu Lys Val Asp Ser Asp Asn Ser Val Val Asp Asn Val Pro
 305 310 315 320
 Val Tyr Val Ala Leu Arg Pro Glu Lys Ile Met Leu Cys Asp Glu Pro
 325 330 335
 Pro Ala Asp Gly Tyr Asn Phe Ala Val Gly Glu Val Val His Ile Ala
 340 345 350
 Tyr Leu Gly Asp Leu Ser Ile Tyr His Val Arg Leu Lys Ser Gly Gln
 355 360 365
 Met Leu Ser Ala Gln Leu Gln Asn Glu His Arg Tyr Arg Lys Gly Gln
 370 375 380
 Pro Thr Trp Gly Asp Glu Val Ser Leu Cys Trp Asp Ala Asp Ser Cys
 385 390 395 400
 Val Val Leu Thr Val
 405

<210> 7090

<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 7090

Gly Ala Val Met Ser Thr Leu Glu Pro Pro Ala Arg Val Lys Lys Pro
 1 5 10 15
 Gly Gly Phe Ala Leu Trp Leu Ala Arg Met Gln Met Ala His Gly Arg
 20 25 30
 Lys Leu Val Ile Ala Met Pro Tyr Ile Trp Leu Ile Leu Leu Phe Leu
 35 40 45
 Leu Pro Phe Leu Ile Val Phe Lys Ile Ser Leu Ala Glu Met Ala Arg
 50 55 60
 Ala Ile Pro Pro Tyr Thr Asp Leu Trp Glu Trp Ala Asp Gly Gln Leu
 65 70 75 80
 Thr Leu Thr Val Asn Leu Gly Asn Phe Leu Gln Leu Thr Asp Asp Pro
 85 90 95
 Leu Tyr Phe Glu Ala Tyr Leu Gln Ser Leu Gln Val Ala Ala Ile Ser
 100 105 110
 Thr Ile Cys Cys Leu Leu Met Gly Tyr Pro Leu Ala Trp Ala Val Ala
 115 120 125
 His Ser Lys Pro Ser Thr Arg Asn Ile Leu Leu Leu Val Ile Leu
 130 135 140
 Pro Ser Trp Thr Ser Phe Leu Ile Arg Val Tyr Ala Trp Met Gly Ile
 145 150 155 160
 Leu Lys Asn Asn Gly Ile Leu Asn Asn Phe Leu Leu Trp Leu Gly Val
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asp | Gln | Pro | Leu | Thr | Ile | Leu | His | Thr | Asn | Leu | Ala | Val | Tyr | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Ile | Val | Tyr | Ala | Tyr | Leu | Pro | Phe | Met | Val | Leu | Pro | Ile | Tyr | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Leu | Thr | Arg | Ile | Asp | Tyr | Ser | Leu | Val | Glu | Ala | Ser | Leu | Asp | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Gly | Ala | Arg | Pro | Leu | Lys | Thr | Phe | Phe | Ser | Val | Ile | Val | Pro | Leu | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Gly | Gly | Ile | Ile | Ala | Gly | Ser | Met | Leu | Val | Phe | Ile | Pro | Ala | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Glu | Phe | Val | Ile | Pro | Glu | Leu | Leu | Gly | Gly | Pro | Asp | Ser | Ile | Met |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Gly | Arg | Val | Leu | Trp | Gln | Glu | Phe | Phe | Asn | Asn | Arg | Asp | Trp | Pro |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Ala | Ser | Ala | Val | Ala | Ile | Val | Met | Leu | Leu | Leu | Leu | Ile | Val | Pro |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Ile | Met | Trp | Phe | His | Lys | His | Gln | Gln | Lys | Gln | Met | Gly | Asp | His | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |

<210> 7091

<211> 379

<212> PRT

<213> Enterobacter cloacae

<400> 7091

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Phe | His | Met | Gln | Cys | Ala | Leu | Tyr | Asp | Ala | Gly | Arg | Cys | Arg | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Gln | Trp | Ile | Glu | Gln | Pro | Val | Ser | Gln | Gln | Leu | Thr | Ala | Lys | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Asn | Leu | Gln | Gln | Leu | Leu | Ala | Ala | His | Ala | Val | Gly | Glu | Trp | Cys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Pro | Val | Ser | Gly | Pro | Glu | Gln | Gly | Phe | Arg | Asn | Lys | Ala | Lys | Met |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Val | Val | Ser | Gly | Ser | Val | Glu | Lys | Pro | Leu | Leu | Gly | Met | Leu | His | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Gly | Thr | Pro | Glu | Asp | Leu | Thr | Asp | Cys | Pro | Leu | Tyr | Pro | Ala | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Glu | Pro | Val | Phe | Ser | Ala | Leu | Lys | Pro | Phe | Ile | Ala | Arg | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Thr | Pro | Tyr | Asn | Val | Ala | Arg | Arg | Arg | Gly | Glu | Leu | Lys | Tyr | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Leu | Thr | Glu | Ser | Gln | Ile | Asp | Gly | Gly | Met | Met | Leu | Arg | Phe | Val |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Leu | Arg | Ser | Glu | Thr | Lys | Leu | Glu | Gln | Leu | Arg | Ala | Ala | Leu | Pro | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Gln | Gln | Gln | Leu | Pro | Gln | Leu | Lys | Val | Ile | Thr | Ala | Asn | Ile | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Val | His | Met | Ala | Ile | Met | Glu | Gly | Glu | Lys | Glu | Ile | Phe | Phe | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Gln | His | Ala | Leu | Glu | Glu | Arg | Phe | Asn | Gly | Val | Pro | Leu | Trp | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Pro | Gln | Ser | Phe | Phe | Gln | Thr | Asn | Pro | Thr | Val | Ala | Ser | Ala | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Tyr | Thr | Thr | Ala | Arg | Asp | Trp | Val | Arg | Ala | Leu | Gln | Val | His | His | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Trp | Asp | Leu | Phe | Cys | Gly | Val | Gly | Gly | Phe | Gly | Leu | His | Cys | Ala | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Asp | Met | Gln | Leu | Thr | Gly | Ile | Glu | Ile | Ser | Ala | Glu | Ala | Ile | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |

Cys Ala Lys Gln Ser Ala Ala Glu Leu Gly Leu Thr Asn Leu His Phe
 275 280 285
 Gln Ala Leu Asp Ser Thr Gln Phe Ala Thr Gly Gln Gly Asn Val Pro
 290 295 300
 Glu Leu Val Leu Val Asn Pro Pro Arg Arg Gly Ile Gly Gln Ala Leu
 305 310 315 320
 Cys Asp Tyr Leu Ser Gln Met Ala Pro Glu Tyr Ile Val Tyr Ser Ser
 325 330 335
 Cys Asn Ala Gln Thr Met Ala Lys Asp Ile Ala Ser Leu Pro Gly Tyr
 340 345 350
 Arg Ile Ala Arg Val Gln Leu Phe Asp Met Phe Pro His Thr Ala His
 355 360 365
 Tyr Glu Val Leu Thr Leu Leu Thr Lys Ala
 370 375

<210> 7092

<211> 271

<212> PRT

<213> Enterobacter cloacae

<400> 7092

Tyr Ser Gln Ala Met Phe Arg Gln Leu His Gln Val Glu His Cys Leu
 1 5 10 15
 Tyr Trp Leu Pro Tyr Val Leu Arg Asn Thr Lys Arg Asp Lys Met Thr
 20 25 30
 Pro Thr Ile Asp Leu Leu Arg Ser His Arg Ser Ile Arg His Phe Thr
 35 40 45
 Asp Glu Pro Ile Thr Gln Ala Gln Arg Asp Ala Ile Ile Asp Ser Ala
 50 55 60
 Arg Gly Thr Ser Ser Ser Phe Leu Gln Cys Ser Ser Ile Ile Arg
 65 70 75 80
 Ile Thr Asp Pro Ala Met Arg Glu Gln Leu Val Thr Leu Thr Gly Gly
 85 90 95
 Gln Lys His Val Ala Gln Ala Ala Glu Phe Trp Val Phe Cys Ala Asp
 100 105 110
 Phe Asn Arg His Leu Gln Ile Cys Pro Glu Ala Glu Leu Gly Leu Ala
 115 120 125
 Glu Gln Leu Leu Leu Gly Val Val Asp Thr Ala Leu Met Ala Gln Asn
 130 135 140
 Ala Phe Thr Ala Ala Glu Ser Leu Gly Leu Gly Gly Val Tyr Ile Gly
 145 150 155 160
 Gly Leu Arg Asn Asn Ile Glu Ser Val Thr Glu Leu Leu Lys Leu Pro
 165 170 175
 Lys His Val Leu Pro Leu Phe Gly Leu Cys Leu Gly Trp Pro Ala Asp
 180 185 190
 Asn Pro Asp Leu Lys Pro Arg Ile Pro Ala Ala Met Leu Val His Glu
 195 200 205
 Asn His Tyr Gln Pro Val Asp Gln Asp Val Leu His Gln Tyr Asp Glu
 210 215 220
 Glu Leu Ala Asn Tyr Tyr Leu Thr Arg Asp Ser Asn Asn Arg Arg Asp
 225 230 235 240
 Thr Trp Ser Asp His Ile Arg Arg Thr Ile Ile Lys Glu Asn Arg Pro
 245 250 255
 Phe Ile Leu Asp Tyr Leu His Lys Gln Gly Trp Ala Thr Arg
 260 265 270

<210> 7093

<211> 379

<212> PRT

<213> Enterobacter cloacae

<400> 7093

Arg Thr Phe Arg Arg Asn Asn Asn Met Ile Ala Leu Asn Lys Lys Trp
 1 5 10 15
 Leu Ser Gly Leu Val Ala Gly Ala Leu Met Ala Val Ser Ala Gly Thr
 20 25 30
 Leu Ala Ala Glu Gln Lys Thr Leu His Val Tyr Asn Trp Ser Asp Tyr
 35 40 45
 Ile Ala Pro Asp Thr Val Ala Asn Phe Glu Lys Glu Thr Gly Ile Lys
 50 55 60
 Val Val Tyr Asp Val Phe Asp Ser Asn Glu Val Leu Glu Gly Lys Leu
 65 70 75 80
 Met Ala Gly Ser Thr Gly Phe Asp Leu Val Val Pro Ser Ala Ser Phe
 85 90 95
 Leu Glu Arg Gln Leu Thr Ala Gly Val Phe Gln Pro Leu Asp Lys Ser
 100 105 110
 Lys Leu Pro Asn Trp Lys Asn Leu Asp Pro Asp Val Leu Lys Leu Val
 115 120 125
 Ala Lys His Asp Pro Asp Asn Lys Tyr Ala Met Pro Tyr Leu Trp Ala
 130 135 140
 Thr Thr Gly Ile Gly Tyr Asn Val Asp Lys Val Lys Ala Ala Leu Gly
 145 150 155 160
 Pro Asp Val Lys Leu Asp Ser Trp Asp Val Val Leu Lys Pro Glu Asn
 165 170 175
 Leu Glu Lys Leu Lys Ser Cys Gly Val Ser Phe Leu Asp Ala Pro Glu
 180 185 190
 Glu Ile Phe Ala Thr Val Leu Asn Tyr Leu Gly Lys Asp Pro Asn Ser
 195 200 205
 Ser Lys Ala Asp Asp Tyr Thr Gly Pro Ala Thr Asp Leu Leu Leu Lys
 210 215 220
 Leu Arg Pro Asn Ile Arg Tyr Phe His Ser Ser Gln Tyr Ile Asn Asp
 225 230 235 240
 Leu Ala Asn Gly Asp Ile Cys Val Ala Ile Gly Trp Ala Gly Asp Val
 245 250 255
 Trp Gln Ala Ala Asn Arg Ala Lys Glu Ala Lys Asn Gly Val Asn Val
 260 265 270
 Ser Tyr Phe Ile Pro Lys Glu Gly Ala Leu Ala Phe Phe Asp Val Phe
 275 280 285
 Ala Met Pro Ala Asp Ala Lys Asn Lys Glu Glu Ala Tyr Gln Phe Leu
 290 295 300
 Asn Tyr Leu Met Arg Pro Asp Val Ile Ala His Ile Ser Asp His Val
 305 310 315 320
 Tyr Tyr Ala Asn Gly Asn Lys Ala Ser Glu Pro Leu Val Ser Glu Glu
 325 330 335
 Ile Arg Asn Asn Pro Ala Ile Tyr Pro Pro Ala Asp Val Phe Ala Lys
 340 345 350
 Leu Phe Thr Leu Lys Val Gln Glu Pro Lys Ile Asp Arg Val Arg Thr
 355 360 365
 Arg Ala Trp Thr Lys Val Lys Ser Gly Lys
 370 375

<210> 7094

<211> 243

<212> PRT

<213> Enterobacter cloacae

<400> 7094

Gln Met Ile Glu Gly Leu Pro Met Lys Gln Ile Leu Leu Val Glu Asp
 1 5 10 15
 Asp His Asp Ile Ala Ala Leu Leu Arg Leu Asn Leu Glu Asp Glu Gly
 20 25 30
 Tyr Ala Ile Thr His Glu Pro Asp Gly Gly Asn Ala Leu Gln Arg Leu


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<210> 7095
<211> 699
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|-----|---------|---------|--------|---------|---------|---------|---------|---------|---------|
| Leu 1 | Met | Asn | Lys | Leu 5 | Phe | Leu | Leu | Ser | Gly 10 | Leu | Ala | Leu | Ala | Ile 15 | Ser |
| Ser | Ala | Cys | His 20 | Ala | Glu | Leu | Arg | Thr 25 | Trp | Pro | Asp | Pro | Thr 30 | Gly | Pro |
| Ser | Gln | Ser 35 | Asp | Phe | Gly | Gly | Thr 40 | Gly | Leu | Met | Gln | Met 45 | Pro | Asp | Ala |
| Arg | Phe 50 | Gly | Arg | Glu | Gly | Glu | Phe 55 | Ser | Val | Asn | Tyr 60 | Arg | Asp | Asn | Asn |
| Gln 65 | Tyr | Arg | Phe | Tyr | Ser | Ser | Ser | Val | Val | Leu | Phe 75 | Pro | Trp | Leu | Glu 80 |
| Gly | Thr | Ile | Arg | Tyr 85 | Thr | Asp | Val | Arg | Thr 90 | Arg | Lys | Tyr | Ser | Ser 95 | Asn |
| Glu | Asp | Phe | Ser 100 | Gly | Asp | Gln | Ser | Tyr 105 | Lys | Asp | Lys | Ser | Phe | Asp | Phe |
| Lys | Val | Arg 115 | Leu | Trp | Glu | Glu | Asp 120 | Tyr | Ser | Leu | Pro | Gln 125 | Val | Ala | Leu |
| Gly | Lys 130 | Arg | Asp | Ile | Ala | Gly | Thr 135 | Gly | Leu | Phe | Asp 140 | Gly | Glu | Tyr | Leu |
| Val 145 | Ala | Ser | Lys | Met | Ala 150 | Gly | Pro | Val | Asp | Phe 155 | Thr | Phe | Gly | Ile | Ala 160 |
| Trp | Gly | Tyr | Pro | Gly 165 | Asn | Ser | Asp | Asn | Val | Gly 170 | Asn | Pro | Leu | Cys 175 | His |
| Asp | Asn | Asn | Lys 180 | Tyr | Cys | Thr | Arg | Gly 185 | Glu | Ser | His | Asp | Ala 190 | Gly | Asp |
| Ile | Ser | Phe 195 | Ser | Asp | Met | Phe | Arg 200 | Gly | Pro | Ala | Ser | Leu 205 | Phe | Gly | Gly |
| Leu | Gln | Tyr | Gln | Thr | Pro | Trp | Gln | Pro | Leu | Arg | Leu | Lys | Leu | Glu | Tyr |

| | | |
|-------------------------|-------------------------|-------------------------|
| 210 | 215 | 220 |
| Asp Gly Asn Asn Tyr Ala | Asp Asp Phe Ala Gly | Ser Ile Lys Gln Ser |
| 225 | 230 | 235 |
| Ser His Ile Asn Val | Gly Ala Val Tyr Arg | Val Ala Asp Trp Ala Asp |
| 245 | 250 | 255 |
| Leu Asn Leu Ser Tyr Glu | Arg Gly Asn Thr Leu Met | Phe Gly Phe Thr |
| 260 | 265 | 270 |
| Leu Arg Thr Asn Phe Asn | Asp Leu Arg Pro Ala Leu | Arg Asp Asn Pro |
| 275 | 280 | 285 |
| Lys Pro Ala Trp Gln Pro | Ala Pro Ala Gly Glu Thr | Leu Asp Tyr Thr |
| 290 | 295 | 300 |
| Ser Ala Ala Asn Gln Leu | Thr Ala Leu Lys Tyr Asn | Ala Gly Phe Asp |
| 305 | 310 | 315 |
| Ala Pro Glu Ile Leu Gln | His Gly Asn Thr Leu Tyr | Met Thr Gly Glu |
| 325 | 330 | 335 |
| Gln Tyr Arg Tyr Arg Asp | Pro Arg Glu Ala Val Asp | Arg Ala Asn Arg |
| 340 | 345 | 350 |
| Ile Leu Ile Asn Asn Leu | Pro Asp Gly Val Asp Thr | Ile Ala Ile Thr |
| 355 | 360 | 365 |
| Gln Gln Arg Asp His Leu | Pro Leu Val Thr Thr Gln | Thr Asp Val Ala |
| 370 | 375 | 380 |
| Ser Leu Arg Lys Gln Leu | Ala Gly Gln Pro Leu Gly | Gln Glu Glu Ala |
| 385 | 390 | 395 |
| Leu Arg Gln Gln Arg Val | Glu Pro Val Asp Thr Thr | Ala Phe Gly Arg |
| 405 | 410 | 415 |
| Gly Tyr Arg Ile Arg Ala | Asp Arg Phe Ser Tyr Ser | Val Lys Pro Thr |
| 420 | 425 | 430 |
| Leu Ala Gln Ser Leu Gly | Gly Gly Pro Glu Asp Phe | Tyr Met Phe Gln Val |
| 435 | 440 | 445 |
| Gly Val Met Ala Ser Ala | Ser Tyr Trp Leu Thr Asp | Arg Leu Leu Leu |
| 450 | 455 | 460 |
| Asp Gly Gly Val Phe Ala | Asn Leu Tyr Asn Asn Tyr | Asp Lys Phe Lys |
| 465 | 470 | 475 |
| Ser Ser Leu Leu Pro Ala | Asp Ser Ser Leu Pro Arg | Val Arg Thr His |
| 485 | 490 | 495 |
| Ile Arg Asp Tyr Val Ser | Asn Asp Val Tyr Ile Asn | Asn Leu Gln Ala |
| 500 | 505 | 510 |
| Asn Tyr Val Asp Ala Leu | Gly Asn Gly Phe Tyr Ala | Gln Ile Tyr Gly |
| 515 | 520 | 525 |
| Gly Tyr Leu Glu Thr Met | Tyr Gly Gly Val Gly Ala | Glu Ala Leu Trp |
| 530 | 535 | 540 |
| Arg Pro Leu Asp Ser Asp | Trp Ala Leu Gly Val Asp | Ala Asn Tyr Val |
| 545 | 550 | 555 |
| Lys Gln Arg Asp Trp Asp | Asp Met Met Arg Phe Thr | Asp Tyr Ser Val |
| 565 | 570 | 575 |
| Pro Thr Gly Phe Ile Thr | Ala Tyr Trp Asn Pro Ala | Lys Leu Asn Ser |
| 580 | 585 | 590 |
| Val Leu Met Lys Leu Ser | Val Gly Gln Tyr Leu Ala | Lys Asp Lys Gly |
| 595 | 600 | 605 |
| Ala Thr Leu Asp Val Ala | Lys Arg Phe Asp Ser Gly | Val Thr Val Gly |
| 610 | 615 | 620 |
| Val Trp Ala Ala Leu Thr | Asn Val Ser Lys Glu Asp | Tyr Gly Glu Gly |
| 625 | 630 | 635 |
| Gly Phe Ser Lys Gly Phe | Tyr Ile Ser Ile Pro Leu | Asp Leu Met Thr |
| 645 | 650 | 655 |
| Ile Gly Pro Asn Arg Asn | Arg Ala Val Val Ser Trp | Thr Pro Leu Thr |
| 660 | 665 | 670 |
| Arg Asp Gly Gly Gln Met | Leu Gly Arg Lys Tyr Gln | Leu Tyr Asp Met |
| 675 | 680 | 685 |
| Thr Ser Glu Arg Glu Thr | Pro Val Gly Gln | |
| 690 | 695 | |

<210> 7096
 <211> 159
 <212> PRT
 <213> Enterobacter cloacae

<400> 7096

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Asn Arg Glu Ile Tyr Gln Asn Met Ala Lys Leu Thr Phe Asn Ala Ile
1      5      10      15
Leu Val Ile Cys Thr Gly Asn Ile Cys Arg Ser Pro Ile Gly Glu Arg
20      25      30
Leu Leu Arg Arg Leu Leu Pro Ala Ala Arg Val Asp Ser Ala Gly Thr
35      40      45
Cys Gly Leu Glu Gly Arg Thr Ala Asp Ser Gln Ala Thr Glu Ile Ala
50      55      60
Ala Glu Arg Gly Thr Leu Leu Glu Gly His Val Ala Arg Arg Leu Thr
65      70      75      80
Pro Ala Met Val Arg Asp Tyr Asp Leu Ile Leu Ala Met Glu Leu Glu
85      90      95
His Ile Glu Gln Phe Thr Ala Ile Ala Pro Glu Ala Arg Gly Lys Met
100     105     110
Met Leu Phe Gly His Trp Thr Gly Lys Lys Glu Ile Pro Asp Pro Thr
115     120     125
Val Lys Pro Gly Thr His Leu Asn Met Phe Met Gly Cys Trp Ser Arg
130     135     140
Pro Val Trp Asn Gly Arg Asn Gly Ser Val Asn His Thr Gly
145     150     155

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<210> 7097
 <211> 729
 <212> PRT
 <213> Enterobacter cloacae

<400> 7097

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Leu Arg Phe Met Ser Thr Asn Asn Leu His Ala His Asp Ala Ser Ala
1      5      10      15
Ala Asn Asn Glu Ile Asp Leu Val Arg Leu Leu Gly Glu Leu Leu Asp
20      25      30
His Arg Lys Phe Ile Leu Ile Leu Thr Ala Leu Phe Thr Leu Val Ala
35      40      45
Leu Leu Tyr Ala Leu Phe Ala Thr Pro Val Tyr Gln Ala Asp Ala Leu
50      55      60
Ile Gln Val Glu Gln Lys Gln Gly Asn Ala Leu Leu Ser Asn Leu Ser
65      70      75      80
Glu Phe Ile Pro Asp Ser Ser Pro Glu Ser Ala Pro Glu Leu Gln Leu
85      90      95
Leu Gln Ser Arg Met Ile Leu Gly Lys Thr Ile Asp Asp Leu Asn Leu
100     105     110
Arg Thr Gln Val Ser Glu Asn Tyr Phe Pro Phe Val Gly Arg Gly Trp
115     120     125
Ala Arg Leu Thr Gly Gln Gln Pro Gly Ile Val Asp Ile Arg Met Leu
130     135     140
Asn Leu Pro Pro Val Ala Gly Arg Ala Gln Lys Leu Thr Leu Thr Val
145     150     155     160
Gly Glu Lys Gly His Tyr Gln Leu Glu Gly Asp Asn Val Thr Leu Gln
165     170     175
Gly Val Val Gly Gln Pro Leu Ser Ala Ala Asn Ile Ala Ile Thr Ile
180     185     190
Ala Asp Ile Gln Ala Lys Pro Gly Thr Gln Phe Thr Ile Thr Gln Gln
195     200     205
Ser Glu Leu Glu Ala Ile Asp Ala Leu Gln Leu Arg Phe Ser Val Ser

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| | | |
|---|-----|-----|
| 210 | 215 | 220 |
| Glu Arg Ser Lys Asp Ser Gly Met Leu Gly Leu Thr Ile Thr Gly Glu | | |
| 225 | 230 | 235 |
| Asp Pro Asp Glu Met Ala Arg Val Leu Asn Cys Ile Ala Asp Asn Tyr | | |
| | 245 | 250 |
| Leu Gln Gln Asn Val Ala Arg Gln Ala Ala Gln Asp Ala Lys Ser Leu | | |
| | 260 | 265 |
| Gln Phe Leu Lys Gln Gln Leu Pro Gln Val Arg Ser Glu Leu Asp Gln | | |
| | 275 | 280 |
| Ala Glu Glu Lys Leu Asn Arg Tyr Arg Gln Gln Asn Asp Ser Val Asp | | |
| | 290 | 295 |
| Leu Asn Leu Glu Ala Lys Ala Val Leu Glu Gln Ile Val Asn Ala Asp | | |
| 305 | 310 | 315 |
| Asn Gln Leu Asn Glu Leu Thr Phe Arg Glu Ala Glu Ile Ser Gln Leu | | |
| | 325 | 330 |
| Tyr Lys Lys Asp His Pro Thr Tyr Arg Ala Leu Ile Glu Lys Arg Gln | | |
| | 340 | 345 |
| Thr Leu Glu Gln Glu Lys Asn Arg Leu Asn Lys Arg Val Ser Ser Met | | |
| | 355 | 360 |
| Pro Ser Thr Gln Gln Glu Val Leu Arg Leu Ser Arg Asp Val Glu Ser | | |
| | 370 | 375 |
| Gly Arg Val Ile Tyr Gln Gln Leu Leu Asn Arg Glu Gln Glu Leu Ser | | |
| 385 | 390 | 395 |
| Ile Ala Arg Ser Ser Ala Ile Gly Asn Val Arg Ile Ile Asp Pro Ala | | |
| | 405 | 410 |
| Val Thr Arg Pro Gln Pro Val Lys Pro Lys Lys Ala Leu Val Val Val | | |
| | 420 | 425 |
| Leu Gly Val Leu Leu Gly Leu Phe Val Ser Ala Gly Trp Ile Leu Ala | | |
| | 435 | 440 |
| Arg Ser Met Leu Arg Met Gly Ile Glu Thr Pro Glu Gln Leu Glu Glu | | |
| | 450 | 455 |
| His Gly Ile Asn Val Tyr Ala Thr Val Pro Leu Ser Glu Trp Leu Ala | | |
| 465 | 470 | 475 |
| Lys Lys Met Arg Leu Arg Lys Lys Asp Phe Met Ser Pro Gly Leu Arg | | |
| | 485 | 490 |
| His Lys Thr Lys His Ile Pro Phe Leu Ala Ala Asp Asn Pro Val Asp | | |
| | 500 | 505 |
| Leu Ser Val Glu Ala Ile Arg Gly Leu Arg Thr Ser Leu His Phe Ala | | |
| | 515 | 520 |
| Met Met Glu Ser Ala Asn Asn Ile Leu Met Ile Ser Gly Ala Thr Pro | | |
| | 530 | 535 |
| Asp Ser Gly Lys Thr Phe Val Ser Ser Thr Leu Ala Ala Val Val Ala | | |
| 545 | 550 | 555 |
| Gln Ala Gly Gln Lys Val Leu Tyr Ile Asp Ala Asp Met Arg Arg Gly | | |
| | 565 | 570 |
| Tyr Ala His Asp Leu Phe Lys Leu Asp Asn Thr Cys Gly Leu Ser Glu | | |
| | 580 | 585 |
| Ile Leu Ser Gly Lys Ala Glu Tyr Thr Gln Gly Val Gln Thr Phe Asp | | |
| | 595 | 600 |
| Lys Gly Gly Phe Asp Thr Ile Val Arg Gly Gln Ile Pro Pro Asn Pro | | |
| | 610 | 615 |
| Ala Glu Leu Leu Met His Thr Arg Phe Gln Gln Leu Leu Asp Trp Ala | | |
| 625 | 630 | 635 |
| Asn Glu Arg Tyr Asp Leu Val Ile Ile Asp Thr Pro Pro Ile Leu Ala | | |
| | 645 | 650 |
| Val Thr Asp Ala Ala Val Val Gly Arg Arg Ala Gly Thr Thr Leu Leu | | |
| | 660 | 665 |
| Val Ala Arg Phe Gly Met Asn Ser Val Lys Glu Met Leu Val Cys Val | | |
| | 675 | 680 |
| Gln Arg Leu Glu Gln Ser Gly Val Asn Thr Lys Gly Val Ile Leu Asn | | |
| | 690 | 700 |

Gly Val Val Lys Arg Ala Ser Asn Ala Tyr Gly Tyr Gly Tyr His His
 705 710 715 720
 Tyr Gly Tyr Asn Tyr Ser Ser Asn
 725

<210> 7098

<211> 606

<212> PRT

<213> Enterobacter cloacae

<400> 7098

Leu Asn Phe Ala Cys Arg Phe Gln Leu Leu Pro Ser Phe Cys Cys Asn
 1 5 10 15
 Lys Asn Asn Ala Leu Lys Arg Ala Arg Lys Met His Phe Cys Ser Trp
 20 25 30
 Ser Ala Ala Pro Gly Gln Gly Ile Pro Phe Ala Lys Gln Gly Gly Val
 35 40 45
 Ile Met Val Lys Trp Ile Ser Ile Leu Met Ile Phe Leu Ser Ser Gly
 50 55 60
 Ala Met Ala Ile Cys Pro Val Trp Ser Pro Ala Lys Ala Gly Gln Glu
 65 70 75 80
 Ile Ala Ala Leu Lys Ala Gln Leu Thr Arg Trp Asn Glu Asp Tyr Trp
 85 90 95
 Lys Gln Gly Ser Ser Glu Val Ser Asp Asp Val Tyr Asp Arg Leu Asn
 100 105 110
 Ala Arg Leu Lys Gln Trp Gln Arg Cys Phe His Asp Glu Pro Leu His
 115 120 125
 Asp Asp Pro Pro Ala Ala Ser Gly Thr Val Lys His Pro Phe Ala His
 130 135 140
 Thr Gly Val His Lys Val Glu Ser Lys Gln Ala Leu Ser Arg Trp Met
 145 150 155 160
 Ala Thr Gln Gln Asp Leu Trp Val Gln Pro Lys Val Asp Gly Val Ala
 165 170 175
 Val Thr Leu Val Tyr Lys Asn Gly Lys Leu Ala Gln Ala Ile Ser Arg
 180 185 190
 Gly Asp Gly Leu Gln Gly Glu Glu Trp Thr Ala Gln Ala Arg Met Ile
 195 200 205
 Pro Ala Ile Pro Gln Thr Leu Ala Gly Pro Leu Ala Asn Ser Val Leu
 210 215 220
 Gln Gly Glu Leu Phe Leu Leu Arg Glu Gly His Ile Gln Gln Arg Met
 225 230 235 240
 Gly Gly Met Asn Ala Arg Ala Lys Val Ala Gly Ala Met Met Arg Ala
 245 250 255
 Thr Asp Arg Ala Ala Leu Lys Gln Thr Gly Ile Phe Ile Trp Ala Trp
 260 265 270
 Pro Asn Gly Pro Lys Val Met Lys Ala Arg Leu Ser Ala Leu Ala Glu
 275 280 285
 Ala Gly Phe Thr Leu Thr Ala Arg Tyr Thr Leu Pro Val Lys Asn Ala
 290 295 300
 Ala Asp Val Glu Ala Gln Arg Thr Ala Trp Phe Lys Ala Ser Leu Pro
 305 310 315 320
 Phe Ala Thr Asp Gly Ile Val Val Arg Ala Ser Ala Glu Pro Pro Gly
 325 330 335
 Glu Glu Trp Leu Pro Gly Glu Gly Ser Trp Val Val Ala Trp Lys Tyr
 340 345 350
 Leu Pro Val Ala Gln Val Thr Glu Val Lys Ala Ile His Phe Thr Val
 355 360 365
 Gly Arg Thr Gly Arg Ile Thr Ala Ile Ala Gln Leu Glu Pro Leu Met
 370 375 380
 Leu Asp Asp Lys Arg Val Gln Arg Val Ser Leu Gly Ser Val Asn Arg
 385 390 395 400

Trp Gln Arg Leu Asp Ile Ala Pro Gly Asp Gln Val Leu Val Ser Leu
 405 410 415
 Ala Gly Gln Gly Ile Pro Arg Leu Asp Asn Val Val Trp Arg Asn Val
 420 425 430
 Asp Arg Arg Lys Pro Gln Pro Pro Ser Ser Arg Tyr Asn Gly Leu Thr
 435 440 445
 Cys Phe Tyr Ala Ser Pro Glu Cys Met Glu Gln Phe Phe Ala Arg Leu
 450 455 460
 Thr Trp Leu Ser Ser Arg Gln Ala Leu Asp Ile Glu Gly Met Gly Glu
 465 470 475 480
 Ser Gly Trp Arg Thr Leu Tyr Gln Ala His Arg Phe Glu His Leu Phe
 485 490 495
 Ser Trp Leu Gln Leu Thr Gln Ala Gln Leu Thr Ala Thr Pro Gly Ile
 500 505 510
 Ser Ala Ser His Gly Ala Ala Leu Trp His Gln Phe Asn Leu Ala Arg
 515 520 525
 Glu Arg Pro Phe Ile Arg Trp Ile Thr Ala Met Gly Ile Pro Leu Ala
 530 535 540
 Arg Ser Thr Leu Lys Ala Ala Gly Asp Arg Thr Trp Gln Ala Leu Ile
 545 550 555 560
 Gln Arg Ser Glu Ala Glu Trp Arg Met Leu Pro Gly Val Gly Gln Glu
 565 570 575
 Lys Ala Arg Gln Ile Val Asn Trp Leu His Gln Pro Gln Ile Asp Ala
 580 585 590
 Leu Ala Lys Trp Leu Ala Ala Glu His Ile Gly Gly Phe
 595 600 605

<210> 7099

<211> 275

<212> PRT

<213> Enterobacter cloacae

<400> 7099

Phe Arg Tyr Arg Pro Gly Thr Pro Glu Arg Thr Asp Ala Arg Arg Gly
 1 5 10 15
 Arg Ile Pro Cys Arg His Asp Asp Val Glu Ala Arg Pro Met Asn Arg
 20 25 30
 Leu Arg Lys Trp Leu Pro Gly Val Gly Leu Ser Leu Phe Ser Leu Ser
 35 40 45
 Ala Leu Cys Ala Ser Val Val Thr Val His Gln Pro Gly Lys Thr Trp
 50 55 60
 Ser Ala Glu Pro Ala Asp Thr Leu Ser Arg Leu Val Thr Gln Pro Gln
 65 70 75 80
 Leu Asn Asn Val Trp Trp Gln Gly Ala Val Ile Ala Thr Pro Ser Ala
 85 90 95
 Thr Leu Arg Ala Gln Gln Thr Gln Gln Val Leu Ala Ser Leu Ser
 100 105 110
 Val Trp Gln Asn Arg Thr Asp Asp Glu Arg Ile Ala Thr Ile Arg Ala
 115 120 125
 Val Ala Ala Gln Ile Arg Ser Leu Arg Ile Val Gly Arg Gln Phe Val
 130 135 140
 Ser Leu Asp Pro Asp Ala Val Arg Thr Asp Ala Arg Gly Asp Arg Phe
 145 150 155 160
 Leu Glu Gly Arg Tyr Asp Leu Trp Leu Ser Pro Ala Pro Arg Thr Val
 165 170 175
 Thr Leu Met Gly Ala Val Val Thr Pro Gly Lys Arg Ala Trp Arg Pro
 180 185 190
 Gly Ala Ser Ile Arg Asp Tyr Leu Gln Gly Gln Leu Arg Leu Ala Gly
 195 200 205
 Ala Asp Arg Asn Asn Val Thr Val Ile Asp Pro Asp Gly Ser Thr Val
 210 215 220

Val Ala Pro Val Ala Tyr Trp Asn Ala Arg His Ile Glu Ala Glu Pro
 225 230 235 240
 Gly Ala Val Leu Trp Val Gly Phe Asp Pro Arg Ala Val Pro Asp Asp
 245 250 255
 Phe Thr Gly Leu Asn Glu Gln Ile Val Ala Leu Leu Thr Arg Arg Ile
 260 265 270
 Pro Asp
 275

<210> 7100

<211> 378

<212> PRT

<213> Enterobacter cloacae

<400> 7100

Met Lys Asn Val Lys Phe Ser Val Leu Ala Leu Ala Met Met Ala Leu
 1 5 10 15
 Ser Gly Cys Thr Ile Val Pro Gly Gln Gly Leu Ser Thr Gln Gly Lys
 20 25 30
 Asp Ile Ile Asp Leu Pro Asp Ser Asn Tyr Asp Leu Asn Lys Met Val
 35 40 45
 Asn Val Tyr Pro Leu Thr Pro Gly Leu Val Glu Gln Leu Leu Pro Gly
 50 55 60
 Lys Val Asp Ser Arg Ala Asn Pro Glu Leu Asp Arg Gln Leu Gln Asn
 65 70 75 80
 Tyr Gln Tyr Cys Ile Gly Val Gly Asp Val Leu Met Val Thr Val Trp
 85 90 95
 Asp His Pro Glu Leu Thr Thr Pro Ala Gly Gln Tyr Arg Ser Ala Ser
 100 105 110
 Asp Thr Gly Asn Trp Val Asn Ala Asp Gly Thr Ile Phe Tyr Pro Tyr
 115 120 125
 Ile Gly Lys Ile Arg Val Val Gly Lys Thr Leu Ala Gln Val Arg Asp
 130 135 140
 Glu Ile Ala Ala Arg Leu Asp Ser Val Ile Glu Ser Pro Gln Val Asp
 145 150 155 160
 Val Ser Val Ala Ala Phe Arg Ser Gln Lys Ala Tyr Val Thr Gly Glu
 165 170 175
 Val Ala Lys Ser Gly Gln Gln Pro Ile Thr Asn Ile Pro Leu Thr Ile
 180 185 190
 Met Asp Ala Ile Asn Ala Ala Gly Gly Leu Thr Ser Glu Ala Asp Trp
 195 200 205
 Arg His Val Val Leu Thr His Asn Gly Gln Asp Thr His Ile Ser Leu
 210 215 220
 Tyr Ala Leu Met Gln Arg Gly Asp Leu Thr Gln Asn Lys Leu Leu Tyr
 225 230 235 240
 Pro Gly Asp Ile Leu Phe Ile Pro Arg Asn Asp Asp Leu Lys Val Phe
 245 250 255
 Val Met Gly Glu Val Gly Lys Gln Ser Thr Gln Lys Met Asp Arg Ser
 260 265 270
 Gly Met Thr Leu Ala Glu Ala Leu Gly Asn Ala Gln Gly Val Asn Gln
 275 280 285
 Asp Met Ala Asp Ala Thr Gly Ile Phe Val Ile Arg Pro Leu Gln Gly
 290 295 300
 Lys Gln Asn Gly Lys Ile Ala Asn Val Tyr Gln Leu Asn Ala Arg Asp
 305 310 315 320
 Ala Thr Ala Met Val Leu Ser Thr Glu Phe Gln Leu Glu Pro Tyr Asp
 325 330 335
 Ile Val Tyr Val Thr Thr Ala Pro Leu Val Arg Trp Asn Arg Val Ile
 340 345 350
 Ser Gln Leu Val Pro Thr Ile Thr Gly Val His Asp Leu Thr Glu Thr
 355 360 365

Gly Arg Tyr Ile Arg Thr Trp Pro Asn
370 375

<210> 7101

<211> 226

<212> PRT

<213> Enterobacter cloacae

<400> 7101

Leu Ile Ser Met Leu Phe Asn Gln Gly Phe Leu Val Arg Leu Phe Ile
1 5 10 15
Leu Leu Ile Met Thr Leu Leu Ile Gln Gly Cys Thr Pro Ser Gln Gln
20 25 30
Ser Ile Ile Glu Thr Phe Asn Ala Ser Leu Asp Gly Arg Gln Asp Val
35 40 45
Thr Val Thr Asp Gly Gln Ile Gln Ala Phe Pro Tyr Ser Thr Met Tyr
50 55 60
Leu Arg Leu Asp Asn Gly Pro Arg Ile Leu Val Val Leu Gly Tyr Ile
65 70 75 80
Glu Gln Gly Asn Ser Lys Trp Leu Ser Gln Asp Asn Ala Met Ile Val
85 90 95
Thr His Asn Gly Arg Leu Ile His Thr Leu Lys Leu Pro Tyr Asn Leu
100 105 110
Leu Glu Val Thr Asn Leu Glu His Asp Pro Leu Arg His Thr Pro Gln
115 120 125
Leu Arg Asp Gly Ser Gln Trp Ser Arg Asp Val Arg Trp Gln Glu Glu
130 135 140
Gly Arg Tyr Arg Ser Ala His Leu Asn Ser Arg Phe Ser Leu Ser Gly
145 150 155 160
Thr Glu Asn Leu Thr Leu Ala Gly Asn Thr Leu Arg Cys Gln Val Trp
165 170 175
Gln Glu Ala Val Gln Ala Asp Gly Leu Asp Arg Arg Trp His Asn Thr
180 185 190
Phe Trp Ile Asp Ser Ala Thr Gly Gln Val Arg Gln Ser Glu Gln Met
195 200 205
Leu Gly Ala Gly Val Phe Pro Val Ala Met Thr Met Leu Lys Pro Ala
210 215 220
Pro
225

<210> 7102

<211> 83

<212> PRT

<213> Enterobacter cloacae

<400> 7102

Gly Pro Arg Gly Ala Gln Ala His Pro Arg His Gly Ala Arg Leu Arg
1 5 10 15
Ser Asp Ser Gly Asp Gly Ala Gly Thr Tyr Arg Ala Val His Gly Tyr
20 25 30
Arg Thr Gly Gly Ala Arg Gln Asn Asp Ala Leu Trp Ser Leu Asp Gly
35 40 45
Gln Lys Arg Asp Pro Gly Pro His Arg Lys Thr Arg Asp Ala Phe Glu
50 55 60
Tyr Val Tyr Gly Leu Leu Glu Gln Ala Ser Leu Glu Trp Ala Lys Arg
65 70 75 80
Leu Ser

<210> 7103

<211> 280

<212> PRT

<213> Enterobacter cloacae

<400> 7103

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Phe | Pro | Phe | Leu | Lys | Glu | Arg | Trp | Gly | Asp | Tyr | Ser | Phe | Gln | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Leu | Arg | Ile | Gly | Ile | Ser | Val | Leu | Tyr | Pro | Tyr | Asn | Ala | Gln | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Ser | Phe | Gln | Ala | Gly | Glu | Ser | Ile | Met | Arg | Pro | Ala | Gly | Arg | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Asn | Gln | Val | Arg | Pro | Val | Thr | Leu | Thr | Arg | Asn | Tyr | Thr | Lys | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Glu | Gly | Ser | Val | Leu | Val | Glu | Phe | Gly | Asp | Thr | Lys | Val | Leu | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ala | Ser | Ile | Glu | Lys | Gly | Val | Pro | Arg | Phe | Leu | Lys | Gly | Gln | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Gly | Trp | Ile | Thr | Ala | Glu | Tyr | Cys | Met | Leu | Pro | Arg | Ala | Thr | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Arg | Asn | Ala | Arg | Glu | Ala | Ala | Lys | Gly | Lys | Gln | Gly | Gly | Arg | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Glu | Ile | Gln | Arg | Leu | Ile | Ala | Arg | Ala | Leu | Arg | Ala | Ala | Val | Asp |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Leu | Lys | Thr | Leu | Gly | Glu | Phe | Thr | Ile | Thr | Leu | Asp | Cys | Asp | Val | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Ala | Asp | Gly | Gly | Thr | Arg | Thr | Ala | Ser | Ile | Thr | Gly | Ala | Cys | Val |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Leu | Ala | Asp | Ala | Leu | Asn | Lys | Leu | Val | Ala | Ala | Gly | Lys | Leu | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Asn | Pro | Met | Lys | Gly | Met | Val | Ala | Ala | Val | Ser | Val | Gly | Ile | Val |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asn | Gly | Glu | Ala | Leu | Cys | Asp | Leu | Glu | Tyr | Val | Glu | Asp | Ser | Ala | Ala |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Glu | Thr | Asp | Met | Asn | Val | Val | Met | Thr | Glu | Asp | Gly | Arg | Ile | Ile | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Gln | Gly | Thr | Ala | Glu | Gly | Glu | Pro | Phe | Thr | His | Glu | Glu | Leu | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Thr | Leu | Leu | Ala | Leu | Ala | Arg | Gly | Gly | Ile | Glu | Ser | Ile | Val | Ala | Thr |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Gln | Lys | Ala | Ala | Leu | Glu | Asn | | | | | | | | | |
| | | 275 | | | | | 280 | | | | | | | | |

<210> 7104

<211> 230

<212> PRT

<213> Enterobacter cloacae

<400> 7104

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Phe | Phe | Leu | Pro | Val | Arg | Leu | Lys | Arg | Gln | Arg | Ser | Lys | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Lys | Ser | Tyr | Gln | Arg | Gln | Phe | Ile | Glu | Phe | Ala | Leu | Asn | Lys | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Leu | Lys | Phe | Gly | Glu | Phe | Thr | Leu | Lys | Ser | Gly | Arg | Lys | Ser | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Phe | Phe | Asn | Ala | Gly | Leu | Phe | Asn | Thr | Gly | Arg | Asp | Leu | Ala | Leu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Leu | Gly | Arg | Phe | Tyr | Ala | Glu | Ala | Leu | Val | Asp | Ser | Gly | Ile | Asp | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Leu | Leu | Phe | Gly | Pro | Ala | Tyr | Lys | Gly | Ile | Pro | Ile | Ala | Thr | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Thr | Ala | Val | Ala | Leu | Ala | Glu | His | His | Asp | Arg | Asp | Val | Pro | Tyr | Cys |
| | | | 100 | | | | | 105 | | | | | 110 | | |

Phe Asn Arg Lys Glu Ala Lys Thr His Gly Glu Gly Gly Asn Leu Val
 115 120 125
 Gly Ser Ala Leu Gln Gly Arg Val Met Leu Val Asp Asp Val Ile Thr
 130 135 140
 Ala Gly Thr Ala Ile Arg Glu Ser Met Glu Ile Ile Gln Ala Asn Gly
 145 150 155 160
 Ala Thr Leu Ala Gly Val Leu Ile Ser Leu Asp Arg Gln Glu Arg Gly
 165 170 175
 Arg Gly Asp Ile Ser Ala Ile Gln Glu Val Glu Arg Asp Tyr Asn Cys
 180 185 190
 Lys Val Thr Ser Ile Ile Thr Leu Lys Asp Leu Ile Ala Tyr Leu Glu
 195 200 205
 Glu Lys Pro Glu Met Ala Asp His Leu Ala Ala Val Arg Gln Tyr Arg
 210 215 220
 Glu Glu Phe Gly Val
 225 230

<210> 7105

<211> 73

<212> PRT

<213> Enterobacter cloacae

<400> 7105

Arg Thr Pro Asp Ile Val Ala Gly Val Ala Ala Leu Lys Thr Leu Val
 1 5 10 15
 Pro Asn Val Val Gly Phe Ala Ala Glu Thr Asn Asn Val Glu Glu Tyr
 20 25 30
 Ala Arg Gln Lys Arg Thr Arg Lys Asn Leu Asp Leu Ile Cys Ala Asn
 35 40 45
 Asp Val Ser Leu Ser Thr Gln Gly Phe Asn Ser Asp Arg Gln Arg Ile
 50 55 60
 Ala Pro Phe Leu Ala Gly Trp Arg
 65 70

<210> 7106

<211> 228

<212> PRT

<213> Enterobacter cloacae

<400> 7106

Cys Asn Asn Lys Pro Gln Thr Ser Val Cys Gly Ser Leu Cys Gly Cys
 1 5 10 15
 Gln Pro Asp Lys Cys Leu Phe Ser Gly Val Phe Cys Asn Met Ala Glu
 20 25 30
 Lys Gln Thr Ala Lys Arg Asn Arg Arg Glu Glu Ile Leu Gln Ser Leu
 35 40 45
 Ala Leu Met Leu Glu Ser Ser Asp Gly Ser Gln Arg Ile Thr Thr Ala
 50 55 60
 Lys Leu Ala Ala Ser Val Gly Val Ser Glu Ala Ala Leu Tyr Arg His
 65 70 75 80
 Phe Pro Ser Lys Thr Arg Met Phe Asp Ser Leu Ile Glu Phe Ile Glu
 85 90 95
 Asp Ser Leu Ile Thr Arg Ile Asn Leu Ile Leu Lys Asp Glu Lys Asp
 100 105 110
 Thr Ser Thr Arg Leu Arg Leu Ile Val Leu Leu Ile Leu Gly Phe Gly
 115 120 125
 Glu Arg Asn Pro Gly Leu Thr Arg Ile Leu Thr Gly His Ala Leu Met
 130 135 140
 Phe Glu Gln Asp Arg Leu Gln Gly Arg Ile Asn Gln Leu Phe Glu Arg
 145 150 155 160
 Ile Glu Ala Gln Leu Arg Gln Val Leu Arg Glu Lys Lys Met Arg Glu

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Asp | Glu | Gly | Tyr | Asn | Thr | Asp | Glu | Thr | Leu | Leu | Ala | Ser | Gln | Ile | Leu | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ala | Phe | Cys | Glu | Gly | Met | Leu | Ser | Arg | Phe | Val | Arg | Ser | Glu | Phe | Lys | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Tyr | Arg | Pro | Thr | Asp | Asp | Phe | Asp | Ala | Arg | Trp | Pro | Leu | Val | Ala | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Gln | Leu | Gln | | | | | | | | | | | | | | | |
| 225 | | | | | | | | | | | | | | | | | |

<210> 7107

<211> 306

<212> PRT

<213> Enterobacter cloacae

<400> 7107

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Glu | Ala | Pro | Glu | Ser | Tyr | Asn | Pro | Pro | Ile | Ser | Pro | Leu | Lys | Thr | Gly | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Met | Ser | Met | Ile | Arg | Ser | Met | Thr | Ala | Tyr | Ala | Arg | Arg | Glu | Ile | Lys | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Gly | Ser | Trp | Gly | Ser | Ala | Thr | Trp | Glu | Met | Arg | Ser | Val | Asn | Gln | Arg | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Tyr | Leu | Glu | Thr | Tyr | Phe | Arg | Met | Pro | Glu | Gln | Phe | Arg | Ser | Leu | Glu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Pro | Val | Val | Arg | Glu | Arg | Ile | Arg | Thr | Arg | Leu | Thr | Arg | Gly | Lys | Val | | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | | |
| Glu | Cys | Asn | Leu | Arg | Phe | Glu | Pro | Asp | Ala | Ser | Ala | Gln | Gly | Glu | Leu | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | |
| Ile | Leu | Asn | Glu | Lys | Leu | Ala | Lys | Gln | Leu | Val | Asn | Ala | Ala | Asn | Trp | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Val | Lys | Met | Gln | Ser | Asp | Glu | Gly | Glu | Ile | Asn | Pro | Val | Asp | Ile | Leu | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Arg | Trp | Pro | Gly | Val | Met | Ala | Ala | Gly | Glu | Gln | Asp | Leu | Asp | Ala | Ile | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Thr | Ala | Glu | Ile | Leu | Ala | Ala | Leu | Asp | Gly | Thr | Leu | Asp | Asp | Phe | Ile | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Val | Ala | Arg | Glu | Thr | Glu | Gly | Gln | Ala | Leu | Lys | Ala | Met | Ile | Glu | Gln | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Arg | Leu | Glu | Gly | Val | Ser | Ala | Glu | Val | Ala | Lys | Val | Arg | Ala | His | Met | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Pro | Glu | Val | Leu | Gln | Trp | Gln | Arg | Glu | Arg | Leu | Val | Ala | Lys | Leu | Glu | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Glu | Ala | Glu | Val | Gln | Leu | Glu | Asn | Asn | Arg | Leu | Glu | Gln | Glu | Leu | Val | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Leu | Met | Ala | Gln | Arg | Val | Asp | Val | Ala | Glu | Glu | Leu | Asp | Arg | Leu | Glu | | |
| 225 | | | | | 230 | | | | 235 | | | | | 240 | | | |
| Ala | His | Val | Lys | Glu | Thr | Tyr | Asn | Ile | Leu | Lys | Lys | Lys | Glu | Ala | Val | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Gly | Arg | Arg | Leu | Asp | Phe | Met | Met | Gln | Glu | Phe | Asn | Arg | Glu | Ser | Asn | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Thr | Leu | Ala | Ser | Lys | Ser | Ile | Asn | Ala | Glu | Val | Thr | Asn | Ser | Ala | Ile | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Glu | Leu | Lys | Val | Leu | Ile | Glu | Gln | Met | Arg | Glu | Gln | Ile | Gln | Asn | Ile | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Glu | | | | | | | | | | | | | | | | | |
| 305 | | | | | | | | | | | | | | | | | |

<210> 7108

<211> 193

<212> PRT

<213> Enterobacter cloacae

<400> 7108

His Ile Gln Lys Thr Leu Met Ala Gln Gly Thr Leu Tyr Ile Val Ser
 1 5 10 15
 Ala Pro Ser Gly Ala Gly Lys Ser Ser Leu Ile Gln Ala Leu Leu Lys
 20 25 30
 Thr Gln Pro Leu Tyr Asp Thr Gln Val Ser Val Ser His Thr Thr Arg
 35 40 45
 Ala Pro Arg Pro Gly Glu Val His Gly Glu His Tyr Phe Phe Val Asn
 50 55 60
 His Asp Glu Phe Arg Ala Met Ile Gly Arg Asp Ala Phe Leu Glu His
 65 70 75 80
 Ala Glu Val Phe Gly Asn Tyr Tyr Gly Thr Ser Arg Glu Thr Ile Glu
 85 90 95
 Gln Val Leu Ala Thr Gly Val Asn Val Phe Leu Asp Ile Asp Trp Gln
 100 105 110
 Gly Ala Gln Gln Ile Arg Lys Lys Met Pro Asp Ser Arg Ser Ile Phe
 115 120 125
 Ile Leu Pro Pro Ser Lys Asp Glu Leu Asp Arg Arg Leu Arg Gly Arg
 130 135 140
 Gly Gln Asp Ser Glu Glu Val Ile Ala Lys Arg Met Ala Gln Ala Val
 145 150 155 160
 Ala Glu Met Ser His Tyr Ala Glu Tyr Asp Tyr Leu Ile Val Asn Asp
 165 170 175
 Asp Phe Asp Ala Pro Leu Ser Asp Arg Phe His Gln Arg Arg Pro Glu
 180 185 190
 Gly

<210> 7109

<211> 215

<212> PRT

<213> Enterobacter cloacae

<400> 7109

Ser Pro Ser Leu His Ser Gly Gly Phe Met Leu Leu His Ile Leu Tyr
 1 5 10 15
 Leu Ile Gly Ile Thr Ala Glu Ala Met Thr Gly Ala Leu Ala Gly
 20 25 30
 Arg Arg Arg Met Asp Thr Phe Gly Val Ile Ile Ile Ala Thr Ala Thr
 35 40 45
 Ala Leu Gly Gly Gly Ser Val Arg Asp Ile Leu Leu Gly His Tyr Pro
 50 55 60
 Leu Gly Trp Val Lys Asn Pro Glu Tyr Val Ile Ile Val Ala Thr Ala
 65 70 75 80
 Ala Val Leu Thr Thr Ile Val Ala Pro Val Met Pro His Leu Arg Arg
 85 90 95
 Val Phe Leu Val Leu Asp Ala Leu Gly Leu Ile Val Phe Ser Ile Ile
 100 105 110
 Gly Ala Gln Ile Ala Leu Asp Met Gly Glu Gly Pro Val Ile Ala Thr
 115 120 125
 Ile Ala Ala Val Ile Thr Gly Val Phe Gly Gly Val Leu Arg Asp Met
 130 135 140
 Phe Cys Lys Arg Ile Pro Leu Val Phe Gln Lys Glu Leu Tyr Ala Gly
 145 150 155 160
 Ile Ser Phe Ala Ala Val Leu Tyr Val Ala Leu Gln His Tyr Val
 165 170 175
 Thr Ser His Asp Val Val Ile Ser Thr Leu Leu Phe Gly Phe Thr
 180 185 190
 Ala Arg Met Leu Ala Leu Arg Leu Lys Leu Gly Leu Pro Val Phe His
 195 200 205

Tyr Lys His Asn Ala His
210 215

<210> 7110

<211> 190

<212> PRT

<213> Enterobacter cloacae

<400> 7110

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Gln | Ala | Thr | His | Cys | Thr | Phe | Ser | Gly | Arg | Met | Glu | Ile | Lys |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ser | Tyr | Arg | Leu | Ser | Ala | Lys | Asn | Ser | Trp | Ala | Asn | Thr | Tyr | Trp | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ser | Leu | Pro | Val | Met | Met | Lys | Lys | Ile | Asp | Val | Lys | Ile | Leu | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Arg | Val | Gly | Glu | Gln | Phe | Pro | Leu | Pro | Thr | Tyr | Ala | Thr | Ser | Gly |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Gly | Leu | Asp | Leu | Arg | Ala | Cys | Leu | Asp | Asp | Ala | Val | Glu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Pro | Gly | Ala | Thr | Leu | Ile | Pro | Thr | Gly | Leu | Ala | Ile | His | Ile | |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Ala | Asp | Pro | Ser | Leu | Ala | Ala | Val | Ile | Leu | Pro | Arg | Ser | Gly | Leu | Gly |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| His | Lys | His | Gly | Val | Val | Leu | Gly | Asn | Leu | Val | Gly | Leu | Ile | Asp | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Tyr | Gln | Gly | Gln | Leu | Met | Val | Ser | Val | Trp | Asn | Arg | Gly | Gln | Asp |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ser | Phe | Thr | Ile | Glu | Pro | Gly | Glu | Arg | Ile | Ala | Gln | Met | Val | Phe | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Val | Val | Gln | Ala | Glu | Phe | Asn | Leu | Val | Ala | Asp | Phe | Asp | Ala | Thr |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asp | Arg | Gly | Glu | Gly | Gly | Phe | Gly | His | Ser | Gly | Arg | Lys | | | |
| | | | 180 | | | | | 185 | | | | | | 190 | |

<210> 7111

<211> 526

<212> PRT

<213> Enterobacter cloacae

<400> 7111

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ala | Ala | Gly | Glu | Cys | Phe | Pro | Arg | Met | Arg | Ile | Ser | Phe | Ser | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ala | Ser | Pro | Ser | Asp | Asp | Phe | Met | Asp | Ala | Leu | Leu | Gln | Leu | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ile | Asp | Lys | Ser | Phe | Pro | Gly | Val | Lys | Ala | Leu | Ser | Gly | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Asn | Val | Tyr | Ser | Gly | Arg | Val | Met | Ala | Leu | Val | Gly | Glu | Asn | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Gly | Lys | Ser | Thr | Met | Met | Lys | Val | Leu | Thr | Gly | Ile | Tyr | Gln | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Ala | Gly | Ser | Leu | Leu | Trp | Leu | Gly | Lys | Glu | Thr | Thr | Phe | Asn | Gly |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Lys | Ser | Ser | Gln | Glu | Ala | Gly | Ile | Gly | Ile | Ile | His | Gln | Glu | Leu |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Asn | Leu | Ile | Pro | Gln | Leu | Thr | Ile | Ala | Glu | Asn | Ile | Phe | Leu | Gly | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Phe | Val | Asn | Arg | Phe | Gly | Lys | Ile | Asp | Trp | Lys | Thr | Met | Tyr | Ala |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Glu | Ala | Asp | Lys | Leu | Leu | Ala | Lys | Leu | Asn | Leu | Arg | Phe | Lys | Ser | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Leu | Val | Gly | Asp | Leu | Ser | Ile | Gly | Asp | Gln | Gln | Met | Val | Glu | Ile |


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<210> 7112
<211> 90
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|----------|-----------|-----------|-----------|----------|-----|-----------|-----------|-----------|-----------|-----|-----------|-----------|-----------|-----------|-----|
| Ser 1 | Ser | Pro | Ser | Ala 5 | Ala | Val | Gly | Cys | Gly 10 | Leu | Ala | Ser | Met | Ala 15 | Lys |
| Val | Val | Ala | Cys 20 | Arg | Ala | Leu | Arg | Ser 25 | Lys | Pro | Leu | Ile | Pro 30 | Ser | Pro |
| Gln | Gly | Asp 35 | Thr | Phe | Asn | Gly | Ala 40 | Leu | Val | Thr | Ala | Leu 45 | Leu | Glu | Gly |
| Lys | Ala 50 | Met | Asp | Asp | Ala | Ile 55 | Arg | Phe | Ala | His | Ala 60 | Ala | Ala | Ala | Ile |
| Ala | Val | Thr | Arg | Lys | Gly | Ala | Gln | Pro | Ser | Val | Pro | Trp | Arg | Lys | Glu |


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<210> 7113
<211> 332
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|
| Arg 1 | Leu | Ala | Thr | Met 5 | Lys | Asp | Val | Ala | Arg 10 | Met | Ala | Gly | Val | Ser 15 | Thr |
| Ser | Thr | Val | Ser 20 | His | Val | Ile | Asn | Asn 25 | Asp | Arg | Phe | Val | Ser 30 | Glu | Ala |
| Ile | Arg | Glu 35 | Lys | Val | Asp | Ala | Ala 40 | Ile | Lys | Glu | Leu | Asn 45 | Tyr | Ala | Pro |
| Ser | Ala 50 | Leu | Ala | Arg | Ser | Leu 55 | Lys | Leu | Asn | Gln | Thr 60 | Arg | Thr | Ile | Gly |
| Met 65 | Leu | Ile | Thr | Ala | Ser 70 | Thr | Asn | Pro | Phe | Tyr 75 | Ser | Glu | Leu | Val | Arg |
| Gly | Val | Glu | Arg | Ser 85 | Cys | Phe | Glu | Arg | Gly 90 | Tyr | Ser | Leu | Val | Leu 95 | Cys |
| Asn | Thr | Glu | Gly 100 | Asp | Glu | Gln | Arg | Met 105 | Asn | Arg | Asn | Leu | Glu 110 | Thr | Leu |
| Met | Gln | Lys 115 | Arg | Val | Asp | Gly | Leu 120 | Leu | Leu | Leu | Cys | Thr 125 | Glu | Thr | His |
| Gln | Pro 130 | Ser | Lys | Glu | Ile | Ile 135 | Gln | Arg | Tyr | Pro | Ser 140 | Ile | Pro | Thr | Val |
| Met 145 | Met | Asp | Trp | Ala | Pro 150 | Phe | Asp | Gly | Thr | Ser 155 | Asp | Leu | Ile | Gln 160 | Asp |
| Asn | Ser | Leu | Leu | Gly 165 | Gly | Asp | Met | Ala | Thr 170 | Gln | His | Leu | Ile | Asp 175 | Lys |
| Gly | His | Thr | Arg 180 | Ile | Ala | Cys | Ile | Thr 185 | Gly | Pro | Leu | Asp | Lys 190 | Thr | Pro |
| Ala | Arg | Leu 195 | Arg | Leu | Glu | Gly | Tyr 200 | Leu | Ser | Ala | Met | Glu 205 | Arg | Ala | Gly |
| Leu | Ala 210 | Ile | Pro | Asp | Gly | Tyr 215 | Arg | Ile | Thr | Gly | Asp 220 | Phe | Glu | Phe | Asn |
| Gly 225 | Gly | Phe | Glu | Ala | Met 230 | Gln | Lys | Leu | Leu | Ala 235 | Gln | Glu | Pro | Arg 240 | Pro |
| Gln | Ala | Val | Phe | Ile 245 | Gly | Asn | Asp | Ala | Met 250 | Ala | Phe | Gly | Ala | Tyr 255 | Gln |
| Ala | Leu | Tyr | Gln 260 | Ala | Gly | Leu | Arg | Val 265 | Pro | Asp | Asp | Met | Ala 270 | Ile | Val |
| Gly | Tyr | Asp 275 | Asp | Ile | Glu | Leu | Ala 280 | Arg | Tyr | Met | Thr 285 | Pro | Pro | Leu | Thr |
| Thr | Ile 290 | His | Gln | Pro | Lys | Asp 295 | Glu | Leu | Gly | Glu | Leu 300 | Ala | Ile | Asp | Val |
| Leu 305 | Ile | His | Arg | Met | Ala 310 | Gln | Pro | Thr | Leu | Gln 315 | Gln | Gln | Arg | Leu 320 | Gln |
| Leu | Thr | Pro | Val | Leu 325 | Met | Glu | Arg | Gly | Ser 330 | Val | | | | | |

```
<210> 7114
<211> 624
<212> PRT
<213> Enterobacter cloacae
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Ser Met Ser Thr Asp Asn Lys Gln Ser Leu Pro Ala Val Thr Leu Ala
1 5 10 15

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ile | Gly | Val | Val | Tyr | Gly | Asp | Ile | Gly | Thr | Ser | Pro | Leu | Tyr | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Arg | Glu | Cys | Leu | Ser | Gly | Gln | Phe | Gly | Phe | Gly | Val | Glu | Arg | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Val | Phe | Gly | Phe | Leu | Ser | Leu | Ile | Phe | Trp | Leu | Leu | Ile | Leu | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ser | Leu | Lys | Tyr | Leu | Ser | Phe | Val | Met | Arg | Ala | Asp | Asn | Ala | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Gly | Gly | Ile | Leu | Thr | Leu | Met | Ser | Leu | Ala | Gly | Arg | Asn | Thr | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Arg | Met | Thr | Ser | Val | Leu | Val | Ile | Ile | Gly | Leu | Ile | Gly | Gly | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Phe | Tyr | Gly | Glu | Val | Val | Ile | Thr | Pro | Ala | Ile | Ser | Val | Met | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Ile | Lys | Gly | Leu | Glu | Ile | Val | Ala | Pro | Gln | Leu | Asp | Thr | Trp | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Pro | Leu | Ala | Ile | Ile | Val | Leu | Thr | Leu | Leu | Phe | Ala | Ile | Gln | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Gly | Thr | Gly | Leu | Val | Gly | Lys | Leu | Phe | Ala | Pro | Ile | Met | Leu | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Trp | Phe | Leu | Ile | Leu | Ala | Ala | Leu | Gly | Leu | Arg | Ser | Ile | Ile | Ala | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Asp | Val | Leu | His | Ala | Leu | Asn | Pro | Leu | Trp | Ala | Val | His | Phe | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Lys | Tyr | Lys | Val | Val | Ser | Phe | Val | Ala | Leu | Gly | Ala | Val | Val | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Ile | Thr | Gly | Val | Glu | Ala | Leu | Tyr | Ala | Asp | Met | Gly | His | Phe | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Leu | Pro | Ile | Arg | Val | Ala | Trp | Phe | Ser | Val | Val | Leu | Pro | Ser | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Leu | Asn | Tyr | Phe | Gly | Gln | Gly | Ala | Leu | Leu | Leu | Ala | His | Pro | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Ile | Lys | Asn | Pro | Phe | Phe | Leu | Leu | Ala | Pro | Asp | Trp | Ala | Leu | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Pro | Met | Leu | Ile | Leu | Ala | Thr | Leu | Ala | Thr | Val | Ile | Ala | Ser | Gln | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Ile | Ser | Gly | Val | Phe | Ser | Leu | Thr | Arg | Gln | Ala | Val | Arg | Leu | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Tyr | Leu | Ser | Pro | Met | Arg | Ile | Ile | His | Thr | Ser | Glu | Met | Glu | Ser | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gln | Ile | Tyr | Ile | Pro | Phe | Val | Asn | Trp | Leu | Leu | Tyr | Phe | Ala | Val | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Val | Ile | Val | Ser | Phe | Glu | His | Ser | Ser | Asn | Leu | Ala | Ala | Ala | Tyr |
| | | 355 | | | | | 360 | | | | | | 365 | | |
| Gly | Ile | Ala | Val | Thr | Gly | Thr | Met | Val | Leu | Thr | Ser | Ile | Leu | Ser | Thr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Thr | Val | Ala | Tyr | Arg | Asn | Trp | His | Trp | Asn | Lys | Phe | Leu | Val | Gly | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ile | Leu | Val | Gly | Phe | Leu | Cys | Ile | Asp | Val | Pro | Leu | Phe | Ser | Ala | Asn |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Leu | Asp | Lys | Ile | Val | Ser | Gly | Gly | Trp | Leu | Pro | Leu | Thr | Leu | Gly | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Val | Met | Phe | Ile | Val | Met | Thr | Thr | Trp | Lys | Ser | Glu | Arg | Phe | Arg | Leu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Leu | Arg | Arg | Met | His | Glu | His | Gly | Asn | Ser | Leu | Glu | Ala | Met | Ile | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ser | Leu | Glu | Lys | Ser | Pro | Pro | Val | Arg | Val | Pro | Gly | Thr | Ala | Val | Tyr |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Met | Ser | Arg | Ala | Leu | Asn | Val | Ile | Pro | Phe | Ala | Leu | Met | His | Asn | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Lys | His | Asn | Lys | Val | Leu | His | Glu | Arg | Val | Ile | Leu | Leu | Thr | Leu | Arg |


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<210> 7115
<211> 277
<212> PRT
<213> Enterobacter cloacae
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```
<210> 7116
<211> 332
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<212> PRT

<213> Enterobacter cloacae

<400> 7116

```

Ile Met Lys Thr Ala Tyr Ile Ala Lys Gln Arg Gln Ile Ser Phe Val
1      5      10      15
Lys Ser His Phe Ser Arg Gln Leu Glu Glu Lys Leu Gly Leu Ile Glu
      20      25      30
Val Gln Ala Pro Ile Leu Ser Arg Val Gly Asp Gly Thr Gln Asp Asn
      35      40      45
Leu Ser Gly Cys Glu Lys Ala Val Gln Val Lys Val Lys Thr Leu Pro
      50      55      60
Asp Ala Gln Phe Glu Val His Ser Leu Ala Lys Trp Lys Arg Gln
65      70      75      80
Thr Leu Gly Gln His Asp Phe Ser Ala Gly Glu Gly Leu Tyr Thr His
      85      90      95
Met Lys Ala Leu Arg Pro Asp Glu Asp Arg Leu Ser Pro Ile His Ser
      100     105     110
Val Tyr Val Asp Gln Trp Asp Trp Glu Arg Val Met Gly Asp Gly Glu
      115     120     125
Arg His Val Gly Thr Leu Lys Ser Thr Val Glu Ala Ile Tyr Ala Gly
      130     135     140
Ile Lys Ala Thr Glu Ala Ala Val Ser Lys Glu Phe Gly Leu Ala Pro
145      150     155     160
Phe Leu Pro Glu Thr Ile His Phe Val His Ser Gln Glu Leu Leu Ser
      165     170     175
Arg Phe Pro Asp Leu Asp Ala Lys Gly Arg Glu Arg Ala Ile Ala Lys
      180     185     190
Glu Leu Gly Ala Val Phe Leu Ile Gly Ile Gly Gly Lys Leu Ser Asp
      195     200     205
Gly Lys Arg His Asp Val Arg Ala Pro Asp Tyr Asp Asp Trp Ser Thr
210      215     220
Val Gly Glu Ser Glu Tyr Ala Gly Leu Asn Gly Asp Ile Leu Val Trp
225      230     235     240
Asn Pro Val Leu Glu Asp Ala Phe Glu Leu Ser Ser Met Gly Ile Arg
      245     250     255
Val Asp Ala Glu Ala Leu Lys Arg Gln Leu Ala Val Thr Gly Asp Glu
      260     265     270
Asp Arg Leu Gln Leu Glu Trp His Gln Ala Leu Leu Arg Gly Glu Met
      275     280     285
Pro Gln Thr Ile Gly Gly Gly Ile Gly Gln Ser Arg Leu Thr Met Leu
      290     295     300
Leu Leu Gln Leu Ser His Ile Gly Gln Val Gln Cys Gly Val Trp Pro
305      310     315     320
Gln Gln Val Arg Glu Ser Val Gly Ser Leu Leu
      325     330

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<210> 7117

<211> 150

<212> PRT

<213> Enterobacter cloacae

<400> 7117

```

Arg Asn Val Ser Leu Val Glu Gln Lys Met Lys Lys Gly Thr Val Leu
1      5      10      15
Asn Ser Glu Ile Ser Ser Val Ile Ser Arg Leu Gly His Thr Asp Thr
      20      25      30
Leu Val Val Cys Asp Ala Gly Leu Pro Val Pro Arg Ser Thr Thr Arg
      35      40      45
Ile Asp Met Ala Leu Thr Gln Gly Val Pro Ser Phe Met Gln Val Leu
50      55      60

```


Glu Val Val Thr Ala Glu Met Gln Val Glu Ala Ala Ile Leu Ala Ala
 65 70 75 80
 Glu Ile Lys Gln His Asn Pro Gln Leu His Glu Thr Leu Leu Ser His
 85 90 95
 Ile Glu Gln Leu Gln Gln His Gln Gly Asn Thr Ile Glu Ile Arg Tyr
 100 105 110
 Thr Thr His Glu Gln Cys Lys Gln His Thr Ala His Ser His Ala Val
 115 120 125
 Ile Arg Ser Gly Gly Met Phe Pro Pro Tyr Ala Asn Ile Ile Leu Cys
 130 135 140
 Ala Gly Val Thr Phe
 145 150

<210> 7118

<211> 182

<212> PRT

<213> Enterobacter cloacae

<400> 7118

Pro Trp Cys Thr Pro Thr Ala Ala Arg Leu Ile Pro Ala Leu Pro Ile
 1 5 10 15
 Thr Pro Ile Cys Leu Ala Gly Ser Val Ser Val Ala Arg Trp Val Ser
 20 25 30
 Arg Pro Arg Ser Gly Ser Trp Leu Ser Phe Ser Trp Arg Arg Gly Thr
 35 40 45
 Cys Cys Thr Ile Pro Val Trp Val Val Ile Ser Met Arg Trp Ala Val
 50 55 60
 Thr Lys Arg Gln Arg Ala Cys Pro Val Ser Ala Leu Ile Lys Ser Lys
 65 70 75 80
 Leu Ser Phe Thr Pro Cys Ala Ala Cys Trp Arg Leu Trp Arg Ala Ser
 85 90 95
 Ser Lys Trp Arg Ala Ser Leu Pro His Ser Gln Arg Arg Val Arg Ala
 100 105 110
 Met Ser Trp Met Pro Ser Arg Gln Trp Phe Trp Ala Val Arg Val Leu
 115 120 125
 Ala Gly Gly Lys Gly Arg Ile Val Gly Thr Leu Ile Gly Ala Leu Ile
 130 135 140
 Leu Gly Phe Leu Asn Asn Gly Leu Asn Leu Leu Gly Val Ser Ser Tyr
 145 150 155 160
 Tyr Gln Met Ile Val Lys Ala Val Val Ile Leu Leu Ala Val Leu Val
 165 170 175
 Asp Asn Lys Lys Gln
 180

<210> 7119

<211> 306

<212> PRT

<213> Enterobacter cloacae

<400> 7119

Leu Thr Thr Leu Gln Asp Ile Leu Asp Met Asn Met Lys Lys Leu Ala
 1 5 10 15
 Thr Leu Val Ser Ala Val Ala Leu Ser Ala Thr Val Ser Ala Asn Ala
 20 25 30
 Met Ala Lys Asp Thr Ile Ala Leu Val Val Ser Thr Leu Asn Asn Pro
 35 40 45
 Phe Phe Val Ser Leu Lys Asp Gly Ala Gln Lys Glu Ala Asp Lys Leu
 50 55 60
 Gly Tyr Asn Leu Val Val Leu Asp Ser Gln Asn Asn Pro Ala Lys Glu
 65 70 75 80
 Leu Ala Asn Val Gln Asp Leu Thr Val Arg Gly Thr Lys Ile Leu Leu


```
<210> 7120
<211> 299
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|---------|-----|-----|---------|--------|-----|---------|--------|---------|--------|-----|--------|---------|--------|--------|-----|
| Gly 1 | Thr | Pro | Asn | Lys 5 | Arg | Lys | Val | Trp | His 10 | Thr | Pro | Pro | Gly | Asn 15 | Thr |
| Gly | Gly | Ala | Leu 20 | Arg | Trp | Thr | Pro | Gln 25 | Tyr | Met | Lys | Thr | Ala 30 | Gly | Asn |
| Leu | Val | Val | Leu 35 | Gly | Ser | Ile | Asn 40 | Ala | Asp | His | Ile | Leu 45 | Asn | Leu | Glu |
| Thr | Phe | Pro | Thr | Pro | Gly | Glu 55 | Thr | Val | Thr | Gly | Asn 60 | Gln | Tyr | Gln | Val |
| Ala 65 | Phe | Gly | Gly | Lys | Gly | Ala 70 | Asn | Gln | Ala | Val | Ala | Ala | Gly | Arg | Ser |
| Gly | Ala | Asn | Ile | Ala 85 | Phe | Ile | Ala | Cys | Thr | Gly | Asp | Asp | Asp | Thr | Gly |
| Glu | Arg | Val | Arg 100 | Lys | Gln | Leu | Ala | Ser 105 | Asp | Asn | Ile | Asp | Ile | Ala | Pro |
| Val | Ser | Val | Val 115 | Ala | Gly | Glu | Ser | Thr 120 | Gly | Val | Ala | Leu 125 | Ile | Phe | Val |
| Asn | Ala | Glu | Gly 130 | Glu | Asn | Val 135 | Ile | Gly | Ile | His | Ala | Gly 140 | Ala | Asn | Ala |
| Ala 145 | Leu | Thr | Thr | Glu | Arg | Val 150 | Glu | Ala | Gln | Arg | Gly | Ile | Ile | Ala | Gly |
| Ala | Glu | Ala | Leu 165 | Leu | Met | Gln | Leu | Glu | Ser | Pro | Val | Glu | Ser | Val | Leu |
| Ala | Ala | Ala | Lys 180 | Ile | Ala | His | Glu | Asn 185 | His | Thr | Ser | Val | Val | Leu | Asn |
| Pro | Ala | Pro | Ala 190 | Arg | Val | Leu | Ser | Asp | Glu | Leu | Leu | Ala | Leu | Val | Asp |

| | | | | | |
|-----|-------------------------|-------------------------------------|---------------------|-----|-----|
| | 195 | | 200 | | 205 |
| Ile | Ile Thr Pro Asn Glu Thr | Glu Ala Glu Lys Leu Thr Gly Ile Arg | | | |
| 210 | | 215 | | 220 | |
| Val | Glu Asn Asp Asp Asp | Ala Ala Arg Ala Ala | Leu Ala Leu His Asp | | |
| 225 | | 230 | | 235 | 240 |
| Lys | Gly Ile Gly Thr Val Ile | Ile Thr Leu Gly Ser Arg Gly Val Trp | | | |
| | 245 | | 250 | | 255 |
| Ala | Ser Val Asn Gly Glu Gly | Arg Arg Val Pro Gly Phe Lys Val Lys | | | |
| | 260 | | 265 | | 270 |
| Ala | Ile Asp Thr Ile Ala Ala | Gly Arg His Leu Gln Arg Cys Ala Gly | | | |
| | 275 | | 280 | | 285 |
| Asn | Gly Ala Ala Gly Arg | Lys Ser Asn Gly | | | |
| 290 | | 295 | | | |

<210> 7121

<211> 147

<212> PRT

<213> Enterobacter cloacae

<400> 7121

| | | |
|-----|---------------------------------|-------------------------------------|
| Lys | Leu Thr Trp Trp Arg Thr | Glu Asp Asn Phe Asn Gln Val Val Asp |
| 1 | | 5 10 15 |
| His | Phe Leu Val Met Arg Ser Ser | Leu Glu Pro Gln Ala Cys Leu Leu |
| | 20 | 25 30 |
| Ala | Ala Thr Leu Gly Thr Ala | Glu Gln Lys Ala Gln Leu Asn Thr Leu |
| | 35 | 40 45 |
| Met | Glu Glu Met Val Asp Leu Lys Lys | His Phe Asn Arg Glu Arg Trp |
| | 50 | 55 60 |
| Ile | Ala Val Asp Met Ala Trp His | Glu His Ile Tyr Asn Met Ser Gly |
| 65 | | 70 75 80 |
| Asn | Pro Phe Leu Thr Ser Phe Ala Ser | Leu Phe His Ser Val Tyr His |
| | 85 | 90 95 |
| Thr | Tyr Phe Thr Ser Ile Thr | Gln Asp Glu Val Val Lys Leu Asn Leu |
| | 100 | 105 110 |
| His | Gln Ala Ile Val Asp Ala Ile | Gln Glu Ser Asp Gly Gln Arg Ala |
| | 115 | 120 125 |
| Leu | Ser Ala Cys Gln Ala Leu Leu | Ala Ala Pro Thr His Gln Gln Val |
| | 130 | 135 140 |
| Asn | Lys | |
| 145 | | |

<210> 7122

<211> 488

<212> PRT

<213> Enterobacter cloacae

<400> 7122

| | | |
|-----|-----------------------------|-------------------------------------|
| Thr | Gly Ala Ser Met Leu Thr | Leu Asp Thr Leu Asn Val Met Leu Ala |
| 1 | | 5 10 15 |
| Val | Ser Glu Glu Gly Leu Ile Glu | Glu Val Val Ile Thr Leu Leu Ala |
| | 20 | 25 30 |
| Ser | Pro Gln Leu Ala Ala Phe Phe | Glu Lys Phe Pro Lys Leu Arg Lys |
| | 35 | 40 45 |
| Ala | Met Thr Asp Asp Leu Pro | Arg Trp Arg Asp Asn Leu Arg Gln Arg |
| | 50 | 55 60 |
| Phe | Lys Glu Thr Glu Val Pro Pro | Glu Leu Thr Glu Glu Val Ala Gly |
| 65 | | 70 75 80 |
| Tyr | Gln Gln Cys Gln Arg Leu Ser | Thr Pro Gln Phe Ile Ala Gln Leu |
| | 85 | 90 95 |
| Gln | Gln Thr Leu Thr Leu Leu | Asp Asn Val His Ser Pro Phe Ala Ser |
| | 100 | 105 110 |

Gln Ala Arg Ala Leu Val Thr Asp Asn Pro Ser Phe Thr Pro Ala Leu
 115 120 125
 His Thr Leu Phe Leu Gln Arg Trp Arg Leu Ser Leu Val Val Gln Ala
 130 135 140
 Thr Ala Leu Asn Gln Gln Leu Leu Asp Glu Glu Arg Glu Gln Leu Leu
 145 150 155 160
 Ser Glu Val Gln Glu Arg Met Thr Leu Ser Gly Gln Leu Glu Gln Val
 165 170 175
 Leu Val Glu Asn Glu Asn Ala Ala Gly Arg Leu Trp Asp Met Ser Ala
 180 185 190
 Gly Gln Leu Lys Arg Gly Asp Tyr Gln Leu Ile Val Lys Tyr Gly Asp
 195 200 205
 Phe Leu Ala Gln Gln Pro Glu Leu Met Lys Leu Ala Glu Gln Leu Gly
 210 215 220
 Arg Ser Arg Glu Ala Arg Ser Val Pro Lys Lys Asp Ala Pro Met Glu
 225 230 235 240
 Thr Phe Arg Thr Leu Val Arg Lys Pro Ser Thr Val Pro Glu Gln Val
 245 250 255
 Asp Gly Leu Gln Gln Ser Asp Asp Ile Leu Arg Leu Leu Pro Thr Glu
 260 265 270
 Leu Ser Thr Leu Gly Met Thr Glu Leu Glu Tyr Glu Phe Tyr Arg Arg
 275 280 285
 Leu Val Glu Lys Gln Leu Ile Thr Tyr Arg Leu His Gly Glu Ala Trp
 290 295 300
 Arg Glu Lys Ile Ser Gln Arg Pro Val Val His Gln Asp Phe Asp Glu
 305 310 315 320
 Gln Pro Arg Gly Pro Phe Ile Val Cys Val Asp Thr Ser Gly Ser Met
 325 330 335
 Gly Gly Phe Asn Glu Gln Cys Ala Lys Ala Phe Cys Leu Ala Leu Met
 340 345 350
 Arg Val Ala Leu Ala Asp Arg Arg Cys Tyr Ile Met Leu Phe Ser
 355 360 365
 Ser Glu Val Val Gly Tyr Glu Leu Thr Ser Pro Gln Gly Leu Glu Gln
 370 375 380
 Ala Ile Arg Phe Leu Ser Gln Arg Phe Arg Gly Gly Thr Asp Leu Ala
 385 390 395 400
 Ser Cys Phe Arg Ser Ile Ile Glu Arg Met Gln Gly Gly Asp Trp Tyr
 405 410 415
 Asp Ala Asp Ala Val Val Ile Ser Asp Phe Ile Ala Gln Arg Leu Pro
 420 425 430
 Asp Glu Val Val Asn Lys Val Lys Glu Met Gln Arg Val His Gln His
 435 440 445
 Arg Phe His Ala Val Ala Met Ser Ala His Gly Lys Pro Gly Ile Met
 450 455 460
 Arg Ile Phe Asp His Ile Trp Arg Phe Asp Thr Gly Leu Arg Ser Arg
 465 470 475 480
 Leu Leu Arg Arg Trp Arg Arg
 485

<210> 7123

<211> 478

<212> PRT

<213> Enterobacter cloacae

<400> 7123

Met Thr Glu Lys Lys Ala Arg Ser Met Ala Gly Leu Pro Trp Ile Ala
 1 5 10 15
 Ala Met Ala Phe Phe Met Gln Ala Leu Asp Ala Thr Ile Leu Asn Thr
 20 25 30
 Ala Leu Pro Ala Ile Ala Gln Ser Leu Asn Arg Ser Pro Leu Ala Met
 35 40 45

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Ala | Ile | Ile | Ser | Tyr | Thr | Leu | Thr | Val | Ala | Met | Leu | Ile | Pro |
| 50 | | | | | 55 | | | | | 60 | | | | | |
| Val | Ser | Gly | Trp | Leu | Ala | Asp | Arg | Phe | Gly | Thr | Arg | Lys | Val | Phe | Met |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Leu | Ala | Val | Thr | Leu | Phe | Thr | Leu | Gly | Ser | Leu | Ala | Cys | Ala | Leu | Ser |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Thr | Ser | Leu | Thr | Glu | Leu | Val | Ile | Phe | Arg | Val | Leu | Gln | Gly | Ile | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ala | Met | Met | Met | Pro | Val | Ala | Arg | Leu | Ala | Leu | Leu | Arg | Ala | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Arg | Ser | Glu | Leu | Leu | Pro | Val | Leu | Asn | Phe | Val | Thr | Met | Pro | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Leu | Val | Gly | Pro | Ile | Leu | Gly | Pro | Val | Leu | Gly | Gly | Val | Leu | Val | Thr |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Trp | Ala | Ser | Trp | His | Trp | Ile | Phe | Leu | Ile | Asn | Ile | Pro | Ile | Gly | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ala | Gly | Leu | Ile | Tyr | Ala | Arg | Lys | Tyr | Met | Pro | Asn | Phe | Thr | Thr | Pro |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Arg | Arg | Ser | Phe | Asp | Met | Gly | Gly | Phe | Phe | Leu | Phe | Gly | Leu | Ser | Leu |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Val | Leu | Phe | Ser | Ser | Gly | Met | Glu | Leu | Phe | Gly | Glu | Lys | Ile | Val | Ser |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Thr | Trp | Leu | Ala | Leu | Ala | Val | Ile | Leu | Ser | Gly | Ile | Leu | Leu | Phe | Leu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Leu | Tyr | Ile | Arg | His | Ala | Arg | Arg | His | Pro | Thr | Pro | Leu | Ile | Ser | Leu |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ser | Leu | Phe | Asn | Thr | Arg | Thr | Phe | Ser | Val | Gly | Ile | Ala | Gly | Asn | Ile |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Ser | Arg | Leu | Gly | Thr | Gly | Cys | Val | Pro | Phe | Leu | Met | Pro | Leu | Met |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Gln | Val | Gly | Phe | Gly | Tyr | Pro | Ala | Leu | Ile | Ala | Gly | Cys | Met | Met |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Ala | Pro | Thr | Ala | Met | Gly | Ser | Ile | Leu | Ala | Lys | Ser | Thr | Val | Thr | Gln |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Val | Leu | Arg | Trp | Phe | Gly | Tyr | Arg | Lys | Thr | Leu | Val | Gly | Val | Thr | Ile |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Phe | Ile | Gly | Leu | Met | Ile | Ala | Gln | Phe | Ser | Leu | Gln | Ser | Ala | Ala | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Ile | Trp | Met | Leu | Ile | Leu | Pro | Leu | Phe | Val | Leu | Gly | Met | Ala | Met |
| | | 355 | | | | 360 | | | | | | 365 | | | |
| Ser | Thr | Gln | Phe | Thr | Ser | Met | Asn | Thr | Ile | Thr | Leu | Ala | Asp | Leu | Thr |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Asp | Glu | Asn | Ala | Ser | Ser | Gly | Asn | Ser | Val | Leu | Ala | Val | Thr | Gln | Gln |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Leu | Ser | Ile | Ser | Leu | Gly | Val | Ala | Val | Ser | Ala | Ala | Val | Leu | Arg | Phe |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Tyr | Glu | Gly | Phe | Asp | Gly | Thr | Asn | Thr | Val | Glu | Gln | Phe | His | Tyr | Thr |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Phe | Ile | Thr | Met | Gly | Ala | Leu | Thr | Val | Val | Ser | Ala | Val | Val | Phe | Met |
| | | 435 | | | | 440 | | | | | | 445 | | | |
| Leu | Leu | Lys | Pro | Lys | Asp | Gly | Arg | Asn | Leu | Ile | Lys | Glu | Arg | His | Lys |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Glu | Lys | Ala | Lys | Pro | Asn | Arg | Val | Pro | Ser | Glu | Gln | Glu | | | |
| 465 | | | | 470 | | | | | | 475 | | | | | |

<210> 7124

<211> 529

<212> PRT

<213> Enterobacter cloacae

<400> 7124

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Thr | Ser | Ala | Tyr | Tyr | Gln | Ala | Arg | Pro | Lys | Arg | Leu | Tyr | Ser |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Leu | Gln | Leu | Ala | Thr | Thr | Ala | Lys | Gly | Cys | Lys | Thr | Ile | Met | Ala | |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| His | Ser | His | Leu | Leu | Ala | Glu | Arg | Ile | Ser | Arg | Leu | Ser | Ser | Ala | Leu |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Glu | Lys | Gly | Leu | Tyr | Glu | Arg | Ser | His | Ala | Ile | Arg | Leu | Cys | Leu | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Leu | Ser | Gly | Glu | Ser | Val | Phe | Leu | Leu | Gly | Pro | Pro | Gly | Ile |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Ala | Lys | Ser | Leu | Ile | Ala | Arg | Arg | Leu | Lys | Phe | Ala | Phe | Gln | Asn | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Arg | Ala | Phe | Glu | Tyr | Leu | Met | Thr | Arg | Phe | Ser | Thr | Pro | Glu | Glu | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Gly | Pro | Leu | Ser | Ile | Gln | Ala | Leu | Lys | Asp | Glu | Gly | Arg | Tyr | Glu |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Arg | Leu | Thr | Ala | Gly | Tyr | Leu | Pro | Glu | Ala | Glu | Ile | Val | Phe | Leu | Asp |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Glu | Ile | Trp | Lys | Ala | Gly | Pro | Ala | Ile | Leu | Asn | Thr | Leu | Leu | Thr | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ile | Asn | Glu | Arg | Arg | Phe | Arg | Asn | Gly | Ala | Ser | Glu | Glu | Lys | Ile | Pro |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Met | Arg | Leu | Leu | Val | Ala | Ala | Ser | Asn | Glu | Leu | Pro | Glu | Ala | Asp | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ser | Leu | Glu | Ala | Leu | Tyr | Asp | Arg | Met | Leu | Ile | Arg | Leu | Trp | Leu | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Val | Gln | Asp | Lys | Ser | Asn | Phe | Arg | Ser | Met | Leu | Val | Ser | Gln | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Glu | Asn | Glu | Asn | Pro | Val | Ala | Ala | Ser | Leu | Gln | Val | Thr | Asp | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Tyr | His | Gln | Trp | Gln | Glu | Glu | Ile | Gly | Lys | Ile | Lys | Leu | Pro | Asp |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Pro | Val | Phe | Glu | Leu | Ile | Phe | Met | Leu | Arg | Gln | Gln | Leu | Asp | Leu | Leu |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Pro | Ser | Ala | Pro | Tyr | Val | Ser | Asp | Arg | Arg | Trp | Lys | Lys | Ala | Ile | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Leu | Gln | Ala | Ser | Ala | Leu | Phe | Ser | Gly | Arg | Asp | Ala | Val | Ala | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Asp | Leu | Ile | Leu | Leu | Lys | Asp | Cys | Leu | Trp | His | Asp | Ala | Glu | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Met | Asn | Leu | Met | Gln | Gln | Gln | Leu | Asp | Val | Leu | Met | Thr | Gly | His | Ala |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Trp | Gly | Gln | Gln | Ser | Met | Leu | Asn | Gln | Leu | Gly | Ala | Ile | Ala | Gln | Arg |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Arg | Leu | Gln | Leu | Gln | Gln | Gln | Gln | Ser | Asp | Lys | Thr | Ala | Leu | Lys | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asn | Arg | Leu | Gly | Gly | Met | Phe | Ala | Arg | Lys | Pro | His | Tyr | Glu | Leu | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Gly | Leu | Thr | Asp | Ala | Ser | Leu | Thr | Leu | Leu | Gln | Gln | Pro | Leu | |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Lys | Leu | His | Asp | Met | Gln | Val | Val | His | Val | Thr | Ile | Glu | Arg | Val | Ala |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Leu | Val | Gln | Trp | Leu | Asp | Lys | Gly | Gly | Glu | Ile | Arg | Gly | Lys | Leu | Asn |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Gly | Ile | Gly | Phe | Ala | Gln | Pro | Leu | Ser | Met | Glu | Val | Asp | Ser | Ser | Gln |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| His | Leu | Val | Ile | Arg | Asp | Val | Ser | Leu | Gln | Gly | Ser | Arg | Leu | Ala | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Pro | Gly | Thr | Ala | Ser | Asp | Thr | Val | Pro | Glu | Glu | Ile | Lys | Gln | Gln | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asp | Ala | Leu | Asp | Asn | Glu | Trp | His | Gln | Gln | His | Thr | Arg | Phe | Ser | Glu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Gln | Gln | Lys | Cys | Leu | Phe | Ile | His | Ser | Asp | Trp | Leu | Gly | Arg | Ile | Glu | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Ala | Ser | Leu | Gln | Asp | Val | Ser | Ala | Gln | Ile | Lys | Gln | Ala | Arg | Gln | Cys | | |
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 <213> Enterobacter cloacae

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 35 40 45
 Met Lys Gln Ala Gly Ile Ile Thr Gly Ala Arg Ile Asp Val Ser Pro
 50 55 60
 Lys Gln Phe Gly Tyr Asp Val Cys Cys Phe Ile Gly Ile Ile Met Lys
 65 70 75 80
 Ser Ala Lys Asp Tyr Pro Ser Ala Leu Glu Lys Leu Asn Ala Leu Asp
 85 90 95
 Glu Val Thr Glu Ala Tyr Tyr Thr Thr Gly His Tyr Ser Ile Phe Ile
 100 105 110
 Lys Val Met Cys Arg Ser Ile Asp Ala Leu Gln Gln Val Leu Ile Asn
 115 120 125
 Lys Ile Gln Thr Ile Asp Glu Ile Gln Ser Thr Glu Thr Leu Ile Ser
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 Leu Gln Asn Pro Ile Met Arg Thr Ile Arg Pro
 145 150 155

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 <211> 180
 <212> PRT
 <213> Enterobacter cloacae

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 Asp Ile Thr Leu Ile Ser Gly Ser Thr Leu Gly Gly Ala Glu Tyr Val
 35 40 45
 Ala Glu His Leu Ala Glu Lys Leu Glu Asp Ala Gly Phe Ser Thr Gln
 50 55 60
 Thr Leu His Gly Pro Leu Leu Glu Asp Leu Pro Thr Asp Gly Val Trp
 65 70 75 80
 Leu Leu Ile Thr Ser Thr His Gly Ala Gly Asp Leu Pro Asp Asn Leu
 85 90 95
 Gln Pro Leu Tyr Asp Glu Leu Leu Glu Gln Gln Pro Asp Leu Ser Asn
 100 105 110
 Val Arg Phe Gly Ala Val Gly Ile Gly Ser Arg Glu Tyr Asp Thr Phe
 115 120 125
 Cys Gly Ala Ile Glu Lys Val Glu Ala Ala Val Thr Ala Cys Gly Ala
 130 135 140
 Lys Gln Leu Gly Glu Thr Leu Lys Ile Asn Ile Leu Asp His Asp Ile
 145 150 155 160

Pro Glu Asp Pro Ala Glu Ile Trp Leu Ala Glu Trp Lys Asn Leu Leu
 165 170 175
 Lys Asn Asp
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<210> 7127

<211> 326

<212> PRT

<213> Enterobacter cloacae

<400> 7127

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 Pro Arg Tyr Trp Phe Thr Trp Phe Gly Leu Gly Val Leu Trp Leu Leu
 35 40 45
 Val Gln Leu Pro Tyr Pro Val Ile Arg Phe Leu Gly Ser Lys Leu Gly
 50 55 60
 Ser Ala Ser Arg His Phe Leu Lys Arg Arg Glu Ser Ile Ala Arg Lys
 65 70 75 80
 Asn Leu Glu Leu Cys Phe Pro His Tyr Asn Ala Gln Gln Arg Glu Thr
 85 90 95
 Leu Ile Ala Glu Asn Phe Lys Ser Ile Gly Met Ala Leu Leu Glu Thr
 100 105 110
 Gly Met Ala Trp Phe Trp Pro Asp Glu Arg Val Arg Lys Trp Phe Asp
 115 120 125
 Val Glu Gly Leu Asp Asn Leu Lys Arg Ala Gln Met Gln Asn Arg Gly
 130 135 140
 Val Met Val Val Gly Leu His Phe Met Ser Leu Glu Leu Gly Gly Arg
 145 150 155 160
 Val Met Gly Leu Cys Gln Pro Met Met Ala Thr Tyr Arg Pro His Asn
 165 170 175
 Ser Ala Leu Met Glu Trp Val Gln Thr Arg Gly Arg Met Arg Ser Asn
 180 185 190
 Lys Ala Met Ile Ser Arg Asn Asn Leu Arg Gly Met Val Gly Ala Leu
 195 200 205
 Lys Lys Gly Glu Ala Val Trp Phe Ala Pro Asp Gln Asp Tyr Gly Pro
 210 215 220
 Lys Gly Ser Ser Phe Ala Pro Phe Phe Ala Val Lys Asp Val Ala Thr
 225 230 235 240
 Thr Asn Gly Thr Phe Val Ile Ser Arg Leu Ser Gly Ala Ala Met Leu
 245 250 255
 Thr Val Thr Met Val Arg Lys Ala Asp Lys Ser Gly Tyr Arg Leu His
 260 265 270
 Ile Ser Pro Glu Met Ala Asn Tyr Pro Glu Asp Glu Ser Glu Ala Ala
 275 280 285
 Thr Phe Ile Asn Lys Val Ile Glu Phe Glu Ile Met Arg Ala Pro Glu
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 Gln Tyr Leu Trp Met His Arg Arg Phe Lys Thr Arg Pro Leu Gly Glu
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 Ala Ser Leu Tyr Ile
 325

<210> 7128

<211> 245

<212> PRT

<213> Enterobacter cloacae

<400> 7128

Gln Met Lys Val Ile Ile Val Glu Asp Glu Phe Leu Ala Gln Gln Glu

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| 1 | | | | 5 | | | | | 10 | | | | 15 | | | |
| Leu | Ser | Trp | Leu | Ile | Lys | Thr | His | Ser | Gln | Met | Glu | Ile | Val | Gly | Cys | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Phe | Glu | Asp | Gly | Leu | Asp | Val | Leu | Lys | Phe | Leu | Gln | His | Asn | Arg | Val | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Asp | Ala | Ile | Phe | Leu | Asp | Ile | Asn | Ile | Pro | Ser | Leu | Asp | Gly | Val | Leu | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Leu | Ala | Gln | Asn | Ile | Asn | Gln | Phe | Ala | His | Lys | Pro | Phe | Ile | Val | Phe | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Val | Thr | Ala | Trp | Lys | Glu | His | Ala | Val | Glu | Ala | Phe | Glu | Leu | Glu | Ala | |
| | | | 85 | | | | | | 90 | | | | | 95 | | |
| Phe | Asp | Tyr | Ile | Leu | Lys | Pro | Tyr | Gln | Glu | Ser | Arg | Ile | Ile | Ser | Met | |
| | | 100 | | | | | | 105 | | | | | 110 | | | |
| Leu | His | Lys | Leu | Glu | Ala | Ala | Trp | Gln | Gln | Gln | Ser | Leu | Pro | Ala | Ser | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Ala | Ser | Pro | Val | Ala | Arg | Glu | Asn | Asp | Thr | Ile | Asn | Leu | Val | Lys | Asp | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Glu | Arg | Ile | Ile | Val | Thr | Pro | Val | Asp | Asp | Ile | Tyr | Tyr | Ala | Glu | Ala | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| His | Glu | Lys | Met | Thr | Phe | Val | Tyr | Thr | Arg | Arg | Glu | Ser | Tyr | Val | Met | |
| | | | 165 | | | | | | 170 | | | | | 175 | | |
| Ala | Met | Asn | Ile | Thr | Glu | Phe | Cys | Asn | Lys | Leu | Pro | Ala | Ala | His | Phe | |
| | | 180 | | | | | | 185 | | | | | 190 | | | |
| Phe | Arg | Cys | His | Arg | Ser | Phe | Cys | Val | Asn | Leu | Asn | Lys | Ile | Arg | Glu | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Ile | Glu | Pro | Trp | Phe | Asn | Asn | Thr | Tyr | Ile | Leu | Arg | Leu | Lys | Asp | Leu | |
| | 210 | | | | 215 | | | | | | 220 | | | | | |
| Asp | Phe | Gln | Val | Pro | Val | Ser | Arg | Ser | Arg | Val | Lys | Glu | Phe | Arg | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Leu | Met | His | Leu | | | | | | | | | | | | | |
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<210> 7129

<211> 420

<212> PRT

<213> Enterobacter cloacae

<400> 7129

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Met | Leu | Leu | Leu | Ala | Val | Pro | Ala | Leu | Ile | Ile | Gly | Val | Ala | Ser | Ser | |
| | | 20 | | | | | | 25 | | | | | 30 | | | |
| Leu | Val | Leu | Ile | Val | Val | Met | Lys | Val | Ala | Ala | Val | Leu | Gln | Thr | Ile | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Leu | Trp | Thr | Ala | Leu | Pro | Val | Lys | Leu | Gly | Ile | Ser | Ile | Asp | Ser | Pro | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gly | Trp | Ile | Met | Val | Met | Leu | Thr | Leu | Thr | Gly | Ile | Ala | Val | Gly | Leu | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Val | Ile | Arg | Tyr | Ser | Pro | Gly | His | Ala | Gly | Pro | Asp | Pro | Ala | Leu | Glu | |
| | | | 85 | | | | | 90 | | | | | | 95 | | |
| Pro | Leu | Ile | Gly | Ala | Pro | Val | Ser | Pro | Ser | Ala | Leu | Pro | Gly | Leu | Ile | |
| | | 100 | | | | | | 105 | | | | | 110 | | | |
| Ile | Ala | Leu | Ile | Ile | Gly | Leu | Ala | Gly | Gly | Val | Ser | Leu | Gly | Pro | Glu | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| His | Pro | Ile | Met | Ala | Val | Asn | Ile | Ala | Leu | Ala | Val | Phe | Leu | Gly | Ala | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Arg | Leu | Phe | Pro | Arg | Val | Gly | Ala | Leu | Asp | Trp | Thr | Ile | Leu | Ala | Ser | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Ala | Gly | Thr | Ile | Gly | Ala | Leu | Phe | Gly | Thr | Pro | Val | Ala | Ala | Ala | Leu | |
| | | | 165 | | | | | 170 | | | | | | 175 | | |
| Ile | Phe | Ser | Gln | Thr | Leu | Ser | Ser | Asp | His | Glu | Val | Pro | Leu | Trp | Asp | |


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<210> 7130
<211> 319
<212> PRT
<213> Enterobacter cloacae
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| Met | Ser | Asn | Tyr | Pro | Glu | Gly | Ala | Val | Met | Lys | Asp | Ile | Asn | Glu | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Ile | Gly | Glu | Asn | Asn | Glu | Glu | Leu | Glu | Ile | Glu | Ser | Glu | Glu | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Arg | Gly | Glu | Glu | Ile | Glu | Val | Asp | Glu | Asp | Arg | Leu | Pro | Ser | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Met | Ala | Ile | His | Glu | His | Ile | Arg | Gln | Asp | Gly | Glu | Lys | Glu | Met |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Glu | Arg | Asp | Ala | Met | Ala | Leu | Leu | Trp | Ser | Ala | Ile | Ala | Ala | Gly | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Met | Gly | Ala | Ser | Leu | Leu | Ala | Lys | Gly | Ile | Phe | His | Val | Gln | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Gly | Val | Pro | Gly | Gly | Phe | Leu | Leu | Glu | Asn | Leu | Gly | Tyr | Thr | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Phe | Ile | Ile | Val | Ile | Met | Ala | Arg | Gln | Gln | Leu | Phe | Thr | Glu | Asn |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Thr | Val | Thr | Ala | Val | Leu | Pro | Val | Met | Gln | Asn | Pro | Thr | Leu | Gly | Asn |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Phe | Gly | Leu | Leu | Met | Arg | Leu | Trp | Ser | Val | Val | Leu | Leu | Gly | Asn | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Gly | Thr | Gly | Ile | Ala | Ala | Trp | Ala | Phe | Glu | Tyr | Met | Pro | Ile | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Glu | Pro | Thr | Arg | Asp | Ala | Phe | Val | Lys | Ile | Gly | Met | Asp | Val | Met |


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<211> 127
<212> PRT
<213> Enterobacter cloacae
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<210> 7132
<211> 575
<212> PRT
<213> Enterobacter cloacae
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| <400> 7132 | | | | | | | | | | | | | | | |
| Ile | Phe | Pro | Val | Phe | Pro | Gly | Leu | Thr | Val | His | Glu | Ile | Phe | Asn | Met |
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| Leu | Leu | Ala | Val | Phe | Asp | Arg | Ala | Ala | Leu | Met | Leu | Ile | Cys | Leu | Phe |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Phe | Leu | Ile | Arg | Ile | Arg | Leu | Phe | Arg | Glu | Leu | Leu | His | Lys | Ser | Ala |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| His | Ser | Pro | Lys | Glu | Leu | Leu | Ala | Val | Thr | Phe | Ile | Phe | Ser | Met | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Leu | Phe | Ser | Thr | Trp | Ser | Gly | Val | Pro | Val | Glu | Gly | Ser | Leu | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Val | Arg | Ile | Ile | Ala | Val | Met | Ser | Gly | Gly | Ile | Leu | Phe | Gly | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Trp | Val | Gly | Ile | Ile | Thr | Gly | Ile | Ile | Ala | Gly | Thr | His | Arg | Tyr | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ile | Asp | Ile | Gly | Gly | Val | Thr | Ala | Val | Pro | Cys | Phe | Ile | Thr | Ser | Ile | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ile | Ala | Gly | Leu | Leu | Ser | Gly | Trp | Ile | Asn | Arg | Lys | Ile | Pro | Lys | Lys | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gln | His | Trp | Arg | Ala | Gly | Ile | Ile | Ala | Gly | Met | Val | Cys | Glu | Thr | Leu | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Thr | Met | Ile | Leu | Val | Ile | Val | Trp | Ala | Pro | Thr | Val | Ala | Leu | Gly | Leu | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Asp | Ile | Val | Ser | Lys | Ile | Gly | Ile | Pro | Met | Ile | Leu | Gly | Ser | Val | Cys | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ile | Gly | Phe | Ile | Val | Leu | Leu | Val | Gln | Ser | Val | Glu | Gly | Glu | Lys | Glu | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Ala | Ser | Ala | Ala | Arg | Gln | Ala | Lys | Leu | Ala | Leu | Asp | Ile | Ala | Asn | Lys | | |
| | 210 | | | | 215 | | | | | | 220 | | | | | | |
| Thr | Leu | Pro | Leu | Phe | Arg | His | Val | Asn | Ala | Glu | Ser | Leu | Arg | Gln | Val | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Cys | Asp | Ile | Ile | Arg | Arg | Asp | Ile | His | Ala | Asp | Ala | Val | Ala | Ile | Thr | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Asn | Ile | Asp | His | Val | Leu | Ala | Tyr | Val | Gly | Val | Gly | Glu | His | Asn | Tyr | | |
| | | 260 | | | | | 265 | | | | | | 270 | | | | |
| Arg | Asp | Ser | Asp | Asp | Thr | Ile | Ser | Pro | Thr | Thr | Arg | Gln | Ala | Ile | Asn | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | |
| Tyr | Gly | Lys | Ile | Ile | Ile | Lys | Asn | Asn | Asp | Glu | Ala | His | Arg | Thr | Pro | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Glu | Ile | His | Ser | Met | Leu | Val | Ile | Pro | Leu | Trp | Glu | Lys | Gly | Val | Val | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Thr | Gly | Thr | Leu | Lys | Ile | Tyr | Tyr | Cys | His | Ala | His | Gln | Ile | Thr | Ser | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Ser | Leu | Gln | Glu | Met | Ala | Ile | Gly | Leu | Ser | Gln | Ile | Ile | Ser | Thr | Gln | | |
| | | 340 | | | | | 345 | | | | | | 350 | | | | |
| Leu | Glu | Val | Ser | Arg | Ala | Glu | Gln | Leu | Arg | Glu | Met | Ala | Asn | Lys | Ala | | |
| | 355 | | | | | | 360 | | | | | 365 | | | | | |
| Glu | Leu | Arg | Ala | Leu | Gln | Ser | Lys | Ile | Asn | Pro | His | Phe | Leu | Phe | Asn | | |
| | 370 | | | | 375 | | | | | 380 | | | | | | | |
| Ala | Leu | Asn | Ala | Ile | Ser | Ser | Ser | Ile | Arg | Leu | Asn | Pro | Asp | Thr | Ala | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Arg | Gln | Leu | Ile | Phe | Asn | Leu | Ser | Arg | Tyr | Leu | Arg | Tyr | Asn | Ile | Glu | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Leu | Lys | Asp | Asp | Glu | Gln | Ile | Asp | Ile | Lys | Lys | Glu | Leu | Tyr | Gln | Ile | | |
| | | 420 | | | | | | 425 | | | | | 430 | | | | |
| Lys | Asp | Tyr | Ile | Ala | Ile | Glu | Gln | Ala | Arg | Phe | Gly | Asp | Lys | Leu | Thr | | |
| | 435 | | | | | 440 | | | | | | 445 | | | | | |
| Val | Ile | Tyr | Asp | Ile | Asp | Glu | Glu | Val | Asn | Cys | Val | Ile | Pro | Ser | Leu | | |
| | 450 | | | | 455 | | | | | | 460 | | | | | | |
| Leu | Ile | Gln | Pro | Leu | Val | Glu | Asn | Ala | Ile | Val | His | Gly | Ile | Gln | Pro | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Cys | Lys | Gly | Lys | Gly | Val | Val | Thr | Ile | Ser | Val | Thr | Glu | Ser | Gly | Asn | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Arg | Val | Arg | Ile | Ala | Val | Arg | Asp | Thr | Gly | His | Gly | Ile | Asp | Pro | Lys | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Val | Ile | Glu | Arg | Val | Lys | Ser | Asn | Glu | Met | Pro | Gly | Asn | Lys | Ile | Gly | | |
| | 515 | | | | | | 520 | | | | | 525 | | | | | |
| Leu | Leu | Asn | Val | His | His | Arg | Val | Lys | Leu | Leu | Tyr | Gly | Asp | Gly | Leu | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| His | Ile | His | Arg | Leu | Glu | Pro | Gly | Thr | Glu | Ile | Ala | Phe | Tyr | Val | Pro | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Asn | Glu | Arg | Thr | Pro | Val | Asn | Ala | Pro | Ile | Ser | Leu | Leu | Pro | | | | |
| | | | | 565 | | | | | 570 | | | | | 575 | | | |

<210> 7133

<211> 437

<212> PRT

<213> Enterobacter cloacae

<400> 7133

[illegible]

<210> 7134

<211> 418

<212> PRT

<213> Enterobacter cloacae

<400> 7134

```

Arg Asp Ser Glu Glu Ser Met Ala Glu Phe Ser Pro Glu Arg Arg Phe
1      5      10      15
Thr Arg Ile Asp Arg Leu Pro Pro Tyr Val Phe Asn Ile Thr Ala Glu
20      25      30
Leu Lys Met Ala Ala Arg Arg Arg Gly Glu Asp Ile Ile Asp Phe Ser
35      40      45
Met Gly Asn Pro Asp Gly Pro Thr Pro Pro His Ile Val Glu Lys Leu
50      55      60
Cys Thr Val Ala Gln Arg Pro Asp Thr His Gly Tyr Ser Thr Ser Arg
65      70      75      80
Gly Ile Pro Arg Leu Arg Arg Ala Ile Ser Arg Trp Tyr Gln Asp Arg
85      90      95
Tyr Gln Val Asp Ile Asp Pro Glu Asn Glu Ala Ile Val Thr Ile Gly
100     105     110
Ser Lys Glu Gly Leu Ala His Leu Met Leu Ala Thr Leu Asp His Gly
115     120     125
Asp Thr Val Leu Val Pro Asn Pro Ser Tyr Pro Ile His Ile Tyr Gly
130     135     140
Ala Val Ile Ala Gly Ala Gln Val Arg Ser Val Pro Leu Val Glu Gly
145     150     155     160
Val Asp Phe Phe Asn Glu Leu Glu Arg Ala Ile Arg Glu Ser Tyr Pro
165     170     175
Lys Pro Lys Met Met Ile Leu Gly Phe Pro Ser Asn Pro Thr Ala Gln
180     185     190
Cys Val Glu Leu Glu Phe Phe Glu Lys Val Val Ala Leu Ala Lys Arg
195     200     205
Tyr Asp Val Leu Val Val His Asp Leu Ala Tyr Ala Asp Ile Val Tyr
210     215     220
Asp Gly Trp Lys Ala Pro Ser Ile Met Gln Val Pro Gly Ala Arg Asp
225     230     235     240
Val Ala Val Glu Phe Phe Thr Leu Ser Lys Ser Tyr Asn Met Ala Gly
245     250     255
Trp Arg Ile Gly Phe Met Val Gly Asn Lys Thr Leu Val Ser Ala Leu
260     265     270
Ala Arg Ile Lys Ser Tyr His Asp Tyr Gly Thr Phe Thr Pro Leu Gln
275     280     285
Val Ala Ala Ile Ala Ala Leu Glu Gly Asp Gln Gln Cys Val Leu Asp
290     295     300
Ile Ala Ala Gln Tyr Lys Arg Arg Arg Asp Val Leu Val Lys Gly Leu
305     310     315     320
His Glu Ala Gly Trp Met Val Glu Met Pro Lys Ala Ser Met Tyr Val
325     330     335
Trp Ala Lys Ile Pro Glu Pro Tyr Ala Ala Met Gly Ser Leu Glu Phe
340     345     350
Ala Lys Lys Leu Leu Gln Asp Ala Lys Val Cys Val Ser Pro Gly Ile
355     360     365
Gly Phe Gly Asp Tyr Gly Asp Thr His Val Arg Phe Ala Leu Ile Glu
370     375     380
Asn Ser Asp Arg Ile Arg Gln Ala Val Arg Gly Ile Lys Ser Met Phe
385     390     395     400
Arg Ala Asp Gly Leu Leu Ala Ala Lys Ser Val Ala Glu Gln Pro Glu
405     410     415
Ser

```


<210> 7135
 <211> 327
 <212> PRT
 <213> Enterobacter cloacae

<400> 7135

```

Arg Ser Ser Arg Arg Met Thr Lys Tyr Ala Leu Val Gly Asp Val Gly
1      5      10      15
Gly Thr Asn Ala Arg Leu Ala Leu Cys Asp Val Asn Ser Gly Glu Ile
20
Ser Gln Ala Lys Thr Tyr Ser Gly Leu Asp Tyr Pro Ser Leu Glu Ala
35      40      45
Val Val Arg Val Tyr Leu Glu His Lys Val Ser Val Glu Asp Gly
50      55      60
Cys Ile Ala Ile Ala Cys Pro Ile Thr Gly Asp Trp Val Ala Met Thr
65      70      75      80
Asn His Thr Trp Ala Phe Ser Ile Ala Glu Met Arg Lys Asn Leu Gly
85      90      95
Phe Ser His Leu Glu Ile Ile Asn Asp Phe Thr Ala Val Ser Met Ala
100      105      110
Ile Pro Met Leu Lys Pro Glu His Leu Ile Gln Phe Gly Gly Thr Ala
115      120      125
Pro Val Glu Gly Lys Pro Ile Ala Val Tyr Gly Ala Gly Thr Gly Leu
130      135      140
Gly Val Ala His Leu Val His Val Asp Lys Arg Trp Val Ser Leu Pro
145      150      155      160
Gly Glu Gly Gly His Val Asp Phe Ala Pro Asn Ser Glu Glu Glu Gly
165      170      175
Ile Ile Leu Glu Glu Leu Arg Ala Glu Ile Gly His Val Ser Ala Glu
180      185      190
Arg Val Leu Ser Gly Pro Gly Leu Val Asn Leu Tyr Arg Ala Ile Val
195      200      205
Lys Ser Asp Gly Arg Leu Pro Glu Asn Leu Gln Pro Lys Asp Val Thr
210      215      220
Glu Arg Ala Leu Ala Asp Ser Cys Ile Asp Cys Arg Arg Ala Leu Ser
225      230      235      240
Leu Phe Cys Val Ile Met Gly Arg Phe Gly Gly Asn Leu Ala Leu Asn
245      250      255
Leu Gly Thr Phe Gly Gly Val Tyr Ile Ala Gly Gly Ile Val Pro Arg
260      265      270
Phe Leu Asp Phe Phe Thr Ala Ser Gly Phe Arg Gly Gly Phe Glu Asp
275      280      285
Lys Gly Arg Phe Arg Ser Tyr Val Gln Asp Ile Pro Val Tyr Leu Ile
290      295      300
Val His Asp Asn Pro Gly Leu Leu Gly Ser Gly Ala His Leu Arg Gln
305      310      315      320
Val Leu Gly Gln Ile Leu
325

```

<210> 7136
 <211> 472
 <212> PRT
 <213> Enterobacter cloacae

<400> 7136

```

Ile Cys Val Pro Ala Cys Leu Leu Lys Val Gln Thr Met Glu Thr Tyr
1      5      10      15
Leu Gln Thr Val Lys Glu Glu Trp Val Lys Leu Ile Asn Glu Thr Asp
20      25      30
Pro Asp Val His Arg Leu Ala Thr Glu Leu Ala Arg Asp Asn Ala Thr
35      40      45

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Val | Ala | Glu | Phe | Tyr | Arg | Val | Val | Leu | Ala | Asp | Pro | Ser | Ala |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ala | Glu | Phe | Leu | Thr | Thr | Glu | Gln | Val | Glu | Arg | Gln | Leu | Gln | Glu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Arg | Arg | Trp | Leu | Ile | Asp | Val | Leu | Ser | Cys | Arg | Val | Glu | Gln | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Glu | Gln | Met | Arg | Ala | Gln | Gln | Arg | Ala | Ala | Asp | Val | His | Ala | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Gly | Ile | Ser | Val | Asp | Leu | Val | Glu | Met | Gly | Phe | Arg | Val | Leu | Lys |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Lys | Leu | Leu | Leu | Pro | Val | Ile | Thr | Thr | Ser | Ala | His | Ser | Pro | Glu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Leu | His | Ile | Tyr | His | Tyr | Ala | Ile | Asn | Ser | Ile | Asp | Leu | Ala | Met |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Glu | Val | Met | Ser | Arg | Ala | Tyr | Val | Phe | Ser | Glu | Asn | Asn | Ala | Ala | Lys |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Glu | Asp | Glu | Asn | Tyr | Arg | Ile | Phe | Ser | Leu | Met | Glu | Asn | Ala | Glu | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Lys | Glu | Arg | Gln | Thr | Ala | Ala | Leu | Leu | Ser | Trp | Glu | Met | Val | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Tyr | Lys | Ile | Thr | Leu | Asn | Ser | Ser | Ile | Gly | Asn | Ser | Leu | Pro | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Gln | Ser | Glu | Phe | Gly | Leu | Trp | Phe | Ser | His | Lys | Gly | Arg | His | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Ser | Gly | Ile | Ala | Glu | Ala | Gly | His | Ile | Ser | Arg | Leu | Ile | Gln | Glu |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Phe | Asp | Asp | Leu | Phe | Asn | Glu | Val | Arg | Leu | Ser | Gly | Gln | Gly | Leu | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Lys | Ala | Gln | Arg | Asp | Lys | Phe | Leu | Gln | Arg | Met | Arg | Asn | Thr | Leu |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ser | Gln | Ile | Ile | Thr | Leu | Leu | Arg | Glu | Leu | Phe | Asp | Glu | Val | Ser | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Glu | Val | Gly | Val | Asp | Val | Leu | Thr | Arg | Leu | Leu | Asn | Arg | Arg | Phe |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Pro | Thr | Ile | Phe | Lys | Arg | Glu | Ile | Leu | His | Ala | Thr | Arg | Ala | Gly |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Thr | Lys | Leu | Ser | Thr | Leu | Leu | Ile | Asp | Val | Asp | Lys | Phe | Lys | Gln | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Asp | Thr | Trp | Gly | His | Asn | Thr | Gly | Asp | Glu | Ile | Leu | Arg | Lys | Val |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Ser | Gly | Ala | Phe | Tyr | Asp | Asn | Val | Arg | Thr | Cys | Asp | Tyr | Val | Phe | Arg |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Tyr | Gly | Gly | Asp | Glu | Phe | Leu | Ile | Val | Leu | Thr | Glu | Ile | Ser | Glu | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asp | Ala | Leu | Arg | Ile | Ala | Glu | Arg | Ile | Arg | Arg | Arg | Val | Glu | Lys | Ile |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Lys | Val | Asn | Ser | Pro | Thr | Gly | Asp | Ile | Ile | Pro | Leu | Ser | Leu | Ser | Ile |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Gly | Val | Ala | Met | Phe | Asn | Gly | His | Pro | Asp | Tyr | Glu | Arg | Leu | Ile | Gln |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Ala | Ala | Asp | Glu | Ala | Leu | Tyr | Gly | Val | Lys | Arg | Arg | Gly | Arg | Asn | Cys |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Val | Glu | Leu | Trp | Lys | Gly | Ala | | | | | | | | | |
| 465 | | | | | 470 | | | | | | | | | | |

<210> 7137

<211> 296

<212> PRT

<213> Enterobacter cloacae

<400> 7137

Arg Glu Arg Val Val Ile Val Leu Val Asp Ile Gly Lys Arg Ala Val
 1 5 10 15
 Thr Ile Thr Cys Thr Phe Gln Ala Glu His His Arg Leu Arg His Arg
 20 25 30
 Trp His Ser Thr Ile Ala Ile Leu Asn Arg Glu Lys Phe Met Lys Leu
 35 40 45
 Arg Leu Ser Ala Leu Ala Leu Gly Val Thr Met Leu Val Gly Cys Ala
 50 55 60
 Ser Ser Gly Glu Gln Thr Gly Arg Ser Asp Pro Leu Glu Gly Phe Asn
 65 70 75 80
 Arg Ser Met Tyr Ser Phe Asn Tyr Asn Val Leu Asp Pro Tyr Leu Val
 85 90 95
 Arg Pro Val Ala Val Ala Trp Arg Asp Tyr Val Pro Gln Pro Ala Arg
 100 105 110
 Asn Gly Leu Ser Asn Phe Thr Ser Asn Leu Glu Glu Pro Ala Val Met
 115 120 125
 Val Asn Tyr Phe Leu Gln Gly Asp Pro Tyr Gln Gly Met Val His Phe
 130 135 140
 Thr Arg Phe Phe Leu Asn Ser Leu Leu Gly Met Gly Gly Leu Ile Asp
 145 150 155 160
 Val Ala Gly Met Ala Asn Pro Lys Leu Gln Arg Glu Gln Pro His Arg
 165 170 175
 Phe Gly Ser Thr Leu Gly His Tyr Gly Val Gly Tyr Gly Pro Tyr Val
 180 185 190
 His Leu Pro Phe Tyr Gly Ser Phe Thr Val Arg Asp Asp Gly Gly Asp
 195 200 205
 Met Val Asp Thr Leu Tyr Pro Val Leu Ser Trp Leu Thr Trp Pro Leu
 210 215 220
 Ser Ile Gly Lys Trp Thr Val Glu Gly Ile Glu Thr Arg Ala Gln Leu
 225 230 235 240
 Leu Asp Ser Asp Gly Leu Leu Arg Gln Ser Ser Asp Pro Tyr Ile Met
 245 250 255
 Val Arg Glu Ala Tyr Phe Gln Asn His Asp Phe Ile Ala Asn Gly Gly
 260 265 270
 Lys Leu Lys Pro Glu Asp Asn Pro Asn Ala Lys Ala Ile Glu Asn Glu
 275 280 285
 Leu Lys Asp Ile Asp Ser Glu
 290 295

<210> 7138

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 7138

Tyr Gly His Glu Trp Arg Trp Met Pro Gly Asn Arg Pro His Tyr Gly
 1 5 10 15
 Arg Trp Pro Gln His Asp Phe Pro Pro Phe Lys Lys Leu Arg Pro Gln
 20 25 30
 Ser Val Thr Ser Arg Ile Gln Pro Gly Ser Asp Val Ile Val Cys Ala
 35 40 45
 Glu Met Asp Glu Gln Trp Gly Tyr Val Gly Ala Lys Ser Arg Gln Arg
 50 55 60
 Trp Leu Phe Tyr Ala Tyr Asp Arg Leu Arg Lys Thr Val Val Ala His
 65 70 75 80
 Val Phe Gly Glu Arg Thr Met Ala Thr Leu Gly Arg Leu Met Ser Leu
 85 90 95
 Leu Ser Pro Phe Asp Val Val Ile Trp Met Thr Asp Gly Trp Pro Leu
 100 105 110
 Tyr Glu Ser Arg Leu Lys Gly Lys Leu His Val Ile Ser Lys Arg Tyr
 115 120 125

Thr Gln Arg Ile Glu Arg His Asn Leu Asn Leu Arg Gln His Leu Ala
 130 135 140
 Arg Leu Gly Arg Lys Ser Leu Ser Phe Ser Lys Ser Val Glu Leu His
 145 150 155 160
 Asp Lys Val Ile Gly His Tyr Leu Asn Ile Lys His Tyr Gln
 165 170 175

<210> 7139

<211> 78

<212> PRT

<213> Enterobacter cloacae

<400> 7139

Cys Cys Gln Leu Thr Asp Leu Val Tyr Asp Gly Val Phe Glu Val Leu
 1 5 10 15
 Gln Trp Leu Leu Phe Leu Ser Ala Val Pro Pro Val Gln Leu Leu Thr
 20 25 30
 Gly Trp Cys Val Thr Val Lys Val Leu Pro Asp Ile Ser Ala Ile Ser
 35 40 45
 Ala Leu Thr Ala Val Lys His Gly Ser Tyr Ser Ser His Thr Gln Pro
 50 55 60
 Leu Asn Pro Val Arg Thr Arg Lys Ser Leu Ile Trp Pro
 65 70 75

<210> 7140

<211> 314

<212> PRT

<213> Enterobacter cloacae

<400> 7140

Pro Gly Arg Asn Pro Ser Cys Ile Pro Ser Trp Ser Gly Leu Glu Gln
 1 5 10 15
 Arg Ala Arg Leu Ala Ala Glu Phe Met Tyr Gly Leu Leu Ser Arg Gln
 20 25 30
 Gly Val Ile Asp Thr Ala Phe Ala Ser Leu Thr Thr Lys Pro His Leu
 35 40 45
 Thr Gln Asp Gln Gln Ala Leu Ile Gln Asp Ile Leu Thr Asp Ile Arg
 50 55 60
 Ile Tyr Gly Gln Pro His Phe Asp Val Thr Ala Phe Tyr Asn Gly Met
 65 70 75 80
 Leu Ser Tyr Leu Asn Arg Gly Arg Phe Arg Ala Thr Gly Glu Leu Thr
 85 90 95
 Thr Gln Asp Arg Leu Arg Glu Val Phe Arg Ile Ser Ser Ile Asp Glu
 100 105 110
 Phe Arg Ala Leu Leu Ala Asn Glu Pro Met Leu Val Leu Pro Glu Cys
 115 120 125
 Pro Asp Asn Lys Leu Thr Leu Glu Ala Phe Phe Trp Arg Asp Glu Tyr
 130 135 140
 Phe Asn Ser Gln Gly Pro Asp Ala Leu Leu Ser Tyr Leu Phe Ser Pro
 145 150 155 160
 Glu Gln Ile Gln Arg Tyr Leu Asn Val Arg Ala Glu Phe Glu Asp Lys
 165 170 175
 Gly Lys Thr Val Glu Lys Leu Ser Ala Gly Gln Arg Gly Thr Phe Tyr
 180 185 190
 Val Cys Leu Lys Leu Ala Ala Asp Ala Phe Gly Ser Pro Phe Val Phe
 195 200 205
 Asp Gln Pro Glu Asp Asp Leu Asp Asn Glu Phe Ile Met His Ser Leu
 210 215 220
 Val Pro Leu Phe Arg Lys Ile Lys Gln Tyr Arg Gln Val Ile Ile Val
 225 230 235 240
 Thr His Asn Ala Asn Leu Val Val Asn Cys Asp Ala Glu Gln Val Ile

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Ile | Ala | Ala | Asn | Asn | Asp | Glu | Val | Ile | Ser | Tyr | Arg | Ser | Gly | Ala | Leu | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Glu | Tyr | Gly | Asp | His | Gly | Ala | Pro | Asn | Ser | Met | Cys | Lys | Ala | Ile | Cys | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Asp | Val | Leu | Glu | Gly | Gly | Arg | Gln | Ala | Phe | Glu | Ala | Arg | Glu | Gln | Lys | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Tyr | Gly | Met | Val | Trp | Leu | Asn | Ala | Ile | | | | | | | | | |
| 305 | | | | | 310 | | | | | | | | | | | | |

<210> 7141

<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 7141

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Gly | Ala | Pro | Val | Ala | Ser | Val | Ser | Ile | Ser | Cys | Pro | Ser | Cys | Ser | Ala | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Thr | Asp | Gly | Val | Val | Arg | Asn | Gly | Lys | Ser | Thr | Ala | Gly | His | Gln | Arg | | |
| | | 20 | | | | | 25 | | | | | | 30 | | | | |
| Tyr | Leu | Cys | Ser | His | Cys | Arg | Lys | Thr | Trp | Gln | Leu | Gln | Phe | Thr | Tyr | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Thr | Ala | Ser | Gln | Pro | Gly | Thr | His | Gln | Lys | Ile | Ile | Asp | Met | Ala | Met | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Asn | Gly | Val | Gly | Cys | Arg | Ala | Thr | Ala | Arg | Ile | Met | Gly | Val | Gly | Leu | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Asn | Thr | Ile | Phe | Arg | His | Leu | Lys | Asn | Ser | Gly | Arg | Ser | Arg | | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |

<210> 7142

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 7142

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Tyr | Gly | His | Glu | Trp | Arg | Trp | Met | Pro | Gly | Asn | Arg | Pro | His | Tyr | Gly | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Arg | Trp | Pro | Gln | His | Asp | Phe | Pro | Pro | Phe | Lys | Lys | Leu | Arg | Pro | Gln | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Ser | Val | Thr | Ser | Arg | Ile | Gln | Pro | Gly | Ser | Asp | Val | Ile | Val | Cys | Ala | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Glu | Met | Asp | Glu | Gln | Trp | Gly | Tyr | Val | Gly | Ala | Lys | Ser | Arg | Gln | Arg | | |
| | 50 | | | | | 55 | | | | 60 | | | | | | | |
| Trp | Leu | Phe | Tyr | Ala | Tyr | Asp | Arg | Leu | Arg | Lys | Thr | Val | Val | Ala | His | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Val | Phe | Gly | Glu | Arg | Thr | Met | Ala | Thr | Leu | Gly | Arg | Leu | Met | Arg | Leu | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Leu | Ser | Pro | Phe | Asp | Val | Val | Ile | Trp | Met | Thr | Asp | Gly | Trp | Pro | Leu | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Tyr | Glu | Ser | Arg | Leu | Lys | Gly | Lys | Leu | His | Val | Ile | Ser | Lys | Arg | Tyr | | |
| | 115 | | | | | 120 | | | | | | 125 | | | | | |
| Thr | Gln | Arg | Ile | Glu | Arg | His | Asn | Leu | Asn | Leu | Arg | Gln | His | Leu | Ala | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Arg | Leu | Gly | Arg | Thr | Ser | Leu | Ser | Phe | Ser | Lys | Ser | Val | Glu | Leu | His | | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 | | |
| Asp | Lys | Val | Ile | Gly | His | Tyr | Leu | Asn | Ile | Lys | His | Tyr | Gln | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |

<210> 7143

<211> 78

<212> PRT

<213> *Enterobacter cloacae*

<400> 7143

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Cys | Gln | Leu | Thr | Asp | Leu | Val | Tyr | Asp | Gly | Val | Phe | Glu | Val | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Trp | Leu | Leu | Phe | Leu | Ser | Ala | Val | Pro | Pro | Val | Gln | Leu | Leu | Thr |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Trp | Cys | Val | Thr | Ala | Lys | Ala | Leu | Pro | Asp | Ile | Ser | Ala | Ile | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Thr | Ala | Val | Lys | His | Gly | Asn | Cys | Ser | Ser | Leu | Thr | Pro | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Asn | Pro | Val | Arg | Thr | Arg | Lys | Ser | Leu | Ile | Trp | Pro | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 7144

<211> 95

<212> PRT

<213> *Enterobacter cloacae*

<400> 7144

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | Pro | Val | Ala | Ser | Val | Ser | Ile | Ser | Cys | Pro | Ser | Cys | Ser | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Asp | Gly | Val | Val | Arg | Asn | Gly | Lys | Ser | Thr | Ala | Gly | His | Gln | Arg |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Tyr | Leu | Cys | Ser | His | Cys | Arg | Lys | Thr | Trp | Gln | Leu | Gln | Phe | Thr | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Ala | Ser | Gln | Pro | Gly | Thr | His | Gln | Lys | Ile | Ile | Asp | Met | Ala | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Gly | Val | Gly | Cys | Arg | Ala | Thr | Ala | Arg | Ile | Met | Gly | Val | Gly | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Thr | Ile | Phe | Arg | His | Leu | Lys | Asn | Ser | Gly | Arg | Ser | Arg | | |
| | | | | 85 | | | | | 90 | | | | | 95 | |

<210> 7145

<211> 243

<212> PRT

<213> *Enterobacter cloacae*

<400> 7145

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Thr | His | His | Leu | Asn | Thr | Phe | Asp | Gly | Gly | Val | Ser | Arg | Leu | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Phe | Lys | Ser | Gln | Arg | Gly | Ala | Asp | Tyr | Pro | Phe | Gln | Phe | Ala | Met |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ile | Ala | Phe | Asn | His | Val | Val | Pro | Val | Leu | Asn | Leu | Ser | Val | Phe | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Arg | Arg | Ala | Pro | Ala | Phe | Ala | Phe | Glu | Gln | Ser | Lys | Arg | Ala | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Gly | Gly | Arg | Phe | Ile | Arg | Val | Asp | Glu | Ser | Arg | Asp | Leu | Pro | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | His | Val | Val | Glu | Asp | Phe | Thr | Gln | Lys | Pro | Val | Cys | Ser | Phe | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Thr | Thr | Gly | Gly | Glu | Ile | Lys | Ile | Asp | Ser | Ala | Ala | Pro | Ala | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Gly | Pro | Val | Gln | Ile | Arg | Pro | Ala | Ala | Ile | Asp | Leu | His | Val | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Ile | His | Val | Pro | Arg | Ala | Lys | Ile | Gly | Arg | Val | Thr | Pro | Val | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Gln | Pro | Phe | Phe | His | Phe | Arg | Arg | Ile | Thr | Leu | Asn | Pro | Ala | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Arg | Gly | Val | Ile | Asp | Ile | His | Ser | Ala | Phe | Ser | Gln | His | Leu | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |

Gln Leu Thr Val Thr Asp Ala Val Phe Ala Val Pro Ala Tyr Gly Pro
 180 185 190
 Gln Asn Asp Val Thr Leu Lys Met Pro Ala Phe Glu Trp Val His Val
 195 200 205
 Gln Leu His Gln Gln Lys Gly Met Ile Ser Leu Ser Pro Pro Thr Ile
 210 215 220
 Cys Asn Ser Ala Asn Arg Asn Asp Lys Asn Glu Pro Pro Gly Cys Asp
 225 230 235 240
 Gly Leu

<210> 7146

<211> 99

<212> PRT

<213> Enterobacter cloacae

<400> 7146

Cys Pro Met Thr Leu Ser Cys Ser Ser Thr Asp Phe Glu Asn Asp Ser
 1 5 10 15
 Asp Val Arg Pro Ser Arg Ala Arg Cys Cys Leu Arg Phe Arg Leu Cys
 20 25 30
 Arg Ser Ile Arg Cys Val Tyr Arg Leu Leu Ile Thr Cys Ser Phe Pro
 35 40 45
 Phe Arg Arg Asp Ser Tyr Ser Gly Gln Pro Ser Val Ile His Ile Thr
 50 55 60
 Thr Ser Lys Gly Asp Ser Ser Leu Ile Arg Arg Pro Ser Val Ala Ile
 65 70 75 80
 Val Arg Ser Pro Asn Thr Cys Ala Thr Thr Val Phe Arg Ser Leu Ser
 85 90 95
 Tyr Ala

<210> 7147

<211> 227

<212> PRT

<213> Enterobacter cloacae

<400> 7147

Ala Ile Asn Pro Met Arg Ile Leu Leu Val Glu Asp Asp Pro Met Val
 1 5 10 15
 Gly Glu Val Val Thr Ser Ser Leu Lys Asp Asn Ala Trp Ala Val Asp
 20 25 30
 Trp Val Lys Ser Gly Asn Asp Ala Cys Val Gly Phe Ser Thr Trp Gln
 35 40 45
 Tyr Asp Val Ile Leu Leu Asp Leu Gly Leu Pro Gly Lys Asp Gly Leu
 50 55 60
 Thr Val Leu Ala Glu Ile Arg Gln Lys Ala Leu Pro Val Pro Val Leu
 65 70 75 80
 Ile Leu Thr Ala Arg Asp Ala Leu Glu Asp Arg Leu Lys Gly Leu Asp
 85 90 95
 Gly Gly Ala Asp Asp Tyr Ile Leu Lys Pro Phe Glu Met Ser Glu Leu
 100 105 110
 Leu Ala Arg Ile Arg Ala Val Ile Arg Arg Asn Thr Gly Asn Gly Asn
 115 120 125
 Pro Val Leu Ser Asn Gly Val Leu Thr Leu Asp Pro Val Thr His Glu
 130 135 140
 Ala Ser Ile Ser Glu Thr Gln Gln Lys Phe Leu Leu Ser Asn Arg Glu
 145 150 155 160
 Tyr Ala Leu Leu Glu Ala Leu Met Leu Arg Pro Gly Gly Ile Leu Ser
 165 170 175
 Arg Ser Ala Leu Glu Asp Arg Ile Tyr Gly Trp Gly Asp Glu Val Glu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 180 | | | | | 185 | | | | 190 | | | |
| Ser | Asn | Ala | Ile | Glu | Phe | Leu | Ile | His | Ala | Leu | Arg | Lys | Lys | Leu | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Asp | Ala | Ile | Lys | Asn | Val | Arg | Gly | Val | Gly | Trp | Leu | Val | Ser | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Gly | | | | | | | | | | | | | | |
| 225 | | | | | | | | | | | | | | | |

<210> 7148

<211> 471

<212> PRT

<213> Enterobacter cloacae

<400> 7148

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Met | Phe | Gly | Leu | Asp | Ala | Phe | His | Leu | Ala | Arg | Val | Gln | Phe | Ala |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Phe | Thr | Val | Ser | Phe | His | Ile | Ile | Phe | Pro | Ala | Ile | Thr | Ile | Gly | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ala | Ser | Phe | Leu | Ala | Val | Leu | Glu | Gly | Leu | Trp | Leu | Lys | Thr | Arg | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Thr | Tyr | Lys | Glu | Leu | Tyr | His | Phe | Trp | Ser | Lys | Ile | Phe | Ala | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Phe | Gly | Met | Gly | Val | Ser | Gly | Leu | Val | Met | Ala | Tyr | Gln | Phe | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Thr | Asn | Trp | Ser | Gly | Phe | Ser | Gln | Phe | Ala | Gly | Ser | Ile | Thr | Gly |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Pro | Leu | Leu | Thr | Tyr | Glu | Val | Leu | Thr | Ala | Phe | Phe | Leu | Glu | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Leu | Gly | Val | Met | Leu | Phe | Gly | Trp | Asn | Arg | Val | Gly | Pro | Gly | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Phe | Phe | Ala | Thr | Cys | Met | Val | Ala | Leu | Gly | Thr | Leu | Phe | Ser | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Trp | Ile | Leu | Ser | Ser | Asn | Ser | Trp | Met | Gln | Thr | Pro | Gln | Gly | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ile | Glu | Asn | Gly | Val | Val | Ile | Pro | Val | Asp | Trp | Leu | Lys | Ile | Ile |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Phe | Asn | Pro | Ser | Phe | Pro | Phe | Arg | Leu | Leu | His | Met | Ser | Thr | Ala | Ala |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Phe | Leu | Ala | Ser | Ala | Phe | Phe | Val | Gly | Ala | Ser | Ala | Ala | Trp | His | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Lys | Gly | Asn | Asp | Thr | Pro | Ala | Ile | Arg | Lys | Met | Phe | Ser | Met | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Trp | Met | Ala | Leu | Ile | Val | Ser | Pro | Ile | Gln | Ala | Val | Ile | Gly | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | His | Gly | Leu | Asn | Thr | Leu | Glu | His | Gln | Pro | Ala | Lys | Ile | Ala | Ala |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ile | Glu | Gly | His | Trp | Glu | Asn | Lys | Pro | Gly | Glu | Ala | Thr | Pro | Leu | Val |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Leu | Phe | Gly | Leu | Pro | Asp | Met | Asn | Ala | Glu | Glu | Thr | Lys | Tyr | Lys | Ile |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Glu | Val | Pro | Tyr | Leu | Gly | Ser | Ile | Ile | Leu | Thr | His | Ser | Leu | Asp | Lys |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Val | Pro | Ala | Leu | Lys | Ser | Phe | Pro | Lys | Glu | Asp | Arg | Pro | Asn | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Ile | Ile | Phe | Trp | Ser | Phe | Arg | Val | Met | Ala | Gly | Leu | Gly | Met | Leu |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Met | Ile | Leu | Leu | Gly | Val | Val | Ser | Val | Trp | Leu | Arg | Trp | Arg | Lys | Arg |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Leu | Tyr | Thr | Ser | Lys | Pro | Phe | Leu | Tyr | Phe | Ser | Leu | Phe | Met | Gly | Pro |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Ser | Gly | Leu | Ile | Ala | Leu | Leu | Ala | Gly | Trp | Phe | Thr | Thr | Glu | Ile | Gly |

| | | |
|---|-----|-----|
| 370 | 375 | 380 |
| Arg Gln Pro Trp Val Val Tyr Gly Val Gln Arg Thr Lys Asp Ala Val | | |
| 385 | 390 | 395 |
| Ser Ala His Gly Asp Leu His Met Ser Ile Ser Leu Leu Ala Phe Leu | | |
| | 405 | 410 |
| Leu Val Tyr Thr Ser Val Phe Gly Val Gly Tyr Ile Tyr Leu Val Arg | | |
| | 420 | 425 |
| Leu Ile Lys Lys Gly Pro Val His Ala Glu Glu His Gln Glu Val Thr | | |
| | 435 | 440 |
| Asp Gly Thr Pro Ala Arg Pro Leu Ser Ala Val Asn Glu Gly Leu Ala | | |
| | 450 | 455 |
| Thr Arg Gly Arg Asp Lys | | 460 |
| 465 | 470 | |

<210> 7149

<211> 246

<212> PRT

<213> Enterobacter cloacae

<400> 7149

| | | |
|---|-----|-----|
| Thr Tyr His Pro Leu Leu Met Glu Leu His Met Asn Pro Phe Lys | | |
| 1 | 5 | 10 |
| Gly Arg His Phe Gln Arg Asp Ile Ile Leu Trp Ala Val Arg Trp Tyr | | |
| | 20 | 25 |
| Cys Lys Tyr Gly Ile Ser Tyr Arg Glu Leu Gln Glu Met Leu Ala Glu | | |
| | 35 | 40 |
| Arg Gly Val Asn Val Asp His Ser Thr Ile Tyr Arg Trp Val Gln Arg | | |
| | 50 | 55 |
| Tyr Ala Pro Glu Met Glu Lys Arg Leu Arg Trp Tyr Trp Arg Asn Pro | | |
| 65 | 70 | 75 |
| Ser Asp Leu Cys Pro Trp His Met Asp Glu Thr Tyr Val Lys Val Asn | | |
| | 85 | 90 |
| Gly Arg Trp Ala Tyr Leu Tyr Arg Ala Val Asp Ser Arg Gly Arg Thr | | |
| | 100 | 105 |
| Val Asp Phe Tyr Leu Ser Ser Arg Arg Asn Ser Lys Ala Ala Tyr Arg | | |
| | 115 | 120 |
| Phe Leu Gly Lys Ile Leu Asn Asn Val Lys Lys Trp Gln Ile Pro Arg | | |
| | 130 | 135 |
| Phe Ile Asn Thr Asp Lys Ala Pro Ala Tyr Gly Arg Ala Leu Ala Leu | | |
| 145 | 150 | 155 |
| Leu Lys Arg Glu Gly Arg Cys Pro Ser Asp Val Glu His Arg Gln Ile | | |
| | 165 | 170 |
| Lys Tyr Arg Asn Asn Val Ile Glu Cys Asp His Gly Lys Leu Lys Arg | | |
| | 180 | 185 |
| Ile Ile Gly Ala Thr Leu Gly Phe Lys Ser Met Lys Thr Ala Tyr Ala | | |
| | 195 | 200 |
| Thr Ile Lys Gly Ile Glu Val Met Arg Ala Leu Arg Lys Gly Gln Ala | | |
| | 210 | 215 |
| Ser Ala Phe Tyr Tyr Gly Asp Pro Leu Gly Glu Met Arg Leu Val Ser | | |
| 225 | 230 | 235 |
| Arg Val Phe Glu Met | | |
| | 245 | |

<210> 7150

<211> 99

<212> PRT

<213> Enterobacter cloacae

<400> 7150

| | | |
|---|---|----|
| Cys Pro Met Thr Leu Ser Cys Ser Ser Thr Asp Phe Glu Asn Asp Ser | | |
| 1 | 5 | 10 |
| | | 15 |

Asp Phe Arg Pro Ser Arg Ala Arg Cys Cys Leu Arg Phe Arg Leu Cys
 20 25 30
 Arg Ser Ile Arg Cys Val Tyr Arg Leu Leu Ile Thr Cys Ser Phe Pro
 35 40 45
 Phe Arg Arg Asp Ser Tyr Ser Gly Gln Pro Ser Val Ile His Ile Thr
 50 55 60
 Thr Ser Lys Gly Asp Ser Arg Leu Ile Arg Arg Pro Ser Val Ala Ile
 65 70 75 80
 Val Arg Ser Pro Asn Thr Cys Ala Thr Thr Val Phe Arg Ser Leu Ser
 85 90 95
 Tyr Ala

<210> 7151

<211> 462

<212> PRT

<213> Enterobacter cloacae

<400> 7151

Lys Cys Gln Gly Ser Arg Met Ala Gly Phe Lys Lys Arg Met Lys Thr
 1 5 10 15
 Ser Val Gln Leu Arg Leu Ser Leu Ala Leu Gly Ile Ala Ile Leu Leu
 20 25 30
 Thr Ala Val Ile Ser Gly Gly Ile Thr Phe Tyr Leu Ala Leu Asp Glu
 35 40 45
 Ala Arg Glu Leu Gln Asp Asp Thr Leu Lys Gln Ile Ala Tyr Val Thr
 50 55 60
 Lys Ser Pro Gly His Asn Ala Leu Pro Glu Ile Lys Gly Gln Lys Arg
 65 70 75 80
 Ala Asp Glu Asp Ser Asp Gly Lys Ile Leu Val Glu Tyr Leu Thr Val
 85 90 95
 Ser Gly Thr Gln Asn Asp Asp Thr Gly Ile Thr Phe His Leu Pro Ala
 100 105 110
 Pro Val Arg Glu Gly Phe Gln Asn Ala Thr Ile Thr Gly Val Gln Tyr
 115 120 125
 Arg Val Leu Val His Arg Leu Thr Pro Glu Gln Phe Val Ile Val Gly
 130 135 140
 Gln Gln Thr Glu Val Arg Asp Gly Ile Ala Phe Ala Ser Ala Leu Arg
 145 150 155 160
 Thr Leu Ile Pro Phe Ile Leu Leu Leu Pro Val Leu Leu Leu Val Thr
 165 170 175
 Thr Asp Leu Ile Lys Lys Ser Phe Arg Pro Val Leu Asn Leu Ala Ala
 180 185 190
 Gly Val Tyr Arg Arg Asp Glu Arg Asp Leu Thr Pro Leu Arg Asp Asp
 195 200 205
 Asn Ile Pro Asp Glu Ile Arg Pro Phe Val Glu Ser Ile Asn Arg Leu
 210 215 220
 Leu His Lys Val Asn Asn Thr Ile Gln Ala Gln Lys Arg Phe Ile Ala
 225 230 235 240
 Asp Ala Ala His Glu Leu Arg Thr Pro Leu Thr Ala Leu Ser Leu Gln
 245 250 255
 Ala Glu Arg Leu Ser Gly Ser Asp Met Ser Ala Glu Ala Arg Glu Arg
 260 265 270
 Leu Ala Ala Leu Arg Leu Gly Leu Thr Arg Glu Lys Asn Leu Leu Glu
 275 280 285
 Gln Leu Leu Ser Leu Ala Arg Glu Gln Gln Pro Leu Gln Thr Gln Gly
 290 295 300
 Thr Glu Ala Val Ser Leu Asn Glu Val Phe Arg Gln Val Ile Glu Thr
 305 310 315 320
 Leu Leu Pro Leu Ala Leu Glu Lys Gly Ile Asp Ile Gly Val Val Glu
 325 330 335

Thr Pro Tyr Gln Ala Glu Ser Gln Val Ile Thr Glu Lys Asn Thr Leu
 340 345 350
 Tyr Thr Ala Leu Lys Asn Leu Val Glu Asn Ala Ile His Tyr Ile Pro
 355 360 365
 Glu Asn Gly Gln Ile Asp Leu Arg Leu Gln Phe Ile Asp Asn Ser Ala
 370 375 380
 Val Ile Asp Val Glu Asp Asn Gly Pro Gly Ile Ala Ala Glu Gln Arg
 385 390 395 400
 Glu Arg Val Phe Asp Ala Phe Tyr Arg Pro Ala Gly Thr Glu Lys Pro
 405 410 415
 Gly Ser Gly Leu Gly Leu Ser Ile Val Lys Ala Cys Val His Arg Leu
 420 425 430
 Gly Gly Thr Ile Ile Leu Ala Pro Ser Ser His Phe Pro Ser Gly Leu
 435 440 445
 Arg Ala Arg Ile Ile Leu Pro Val Glu Ser His Ser Gly
 450 455 460

<210> 7152

<211> 116

<212> PRT

<213> Enterobacter cloacae

<400> 7152

Arg Tyr Arg Gly Cys Pro Val Pro Pro Gly Ser Leu Cys Ile Arg Ala
 1 5 10 15
 Arg Asn Ser Met Lys Asp Glu Ile Ala Arg Gln Ile Ala Gly Leu Ile
 20 25 30
 Glu Leu Asn Lys Phe Asn Gly Tyr Thr Leu Val Ser Gly Glu Asp Trp
 35 40 45
 Gln Lys Pro Thr Val Thr Glu Ile Leu Leu Val Arg Gly Phe Ile Pro
 50 55 60
 Leu Thr Asp Asn Gln Leu Ala Asn Arg Leu Asp Val Asp Glu Arg Thr
 65 70 75 80
 Ile Arg Lys Trp Lys Ser Gly Glu Thr Ser Met Val Tyr Thr Thr Trp
 85 90 95
 Cys Cys Leu Cys Trp Leu Ala Gly Leu Gly Met Pro Leu Asp Asn Ile
 100 105 110
 Ile Ser Gly
 115

<210> 7153

<211> 347

<212> PRT

<213> Enterobacter cloacae

<400> 7153

Gly Phe Gly Asn Thr Trp Glu Arg Gln Ile Met Gly Ile Asp Leu Ser
 1 5 10 15
 Ile Ile Trp Phe Val Ile Ile Val Phe Ala Thr Leu Met Tyr Ile Val
 20 25 30
 Met Asp Gly Phe Asp Leu Gly Ile Gly Ile Leu Phe Pro Phe His Lys
 35 40 45
 His Asp Val Asp Arg Asp Thr Met Met Asn Thr Val Ala Pro Val Trp
 50 55 60
 Asp Gly Asn Glu Thr Trp Met Val Leu Gly Gly Ala Ala Leu Tyr Gly
 65 70 75 80
 Ala Phe Pro Leu Ala Tyr Ala Val Ile Ile Asp Ala Leu Ser Ile Pro
 85 90 95
 Leu Thr Ala Met Leu Leu Gly Leu Ile Phe Arg Gly Val Ala Phe Glu
 100 105 110
 Phe Arg Phe Lys Ala Ile Pro Glu His Arg Pro Ile Trp Asp Lys Ala


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<210> 7154
<211> 167
<212> PRT
<213> Enterobacter cloacae
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<210> 7155
<211> 127
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<212> PRT

<213> Enterobacter cloacae

<400> 7155

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Glu | Gln | Met | Arg | Gln | Asn | Ile | Gln | Leu | Gln | Pro | Glu | Tyr | His | Ser | Ala | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Phe | Leu | Asp | Ser | Ala | Leu | Ser | Glu | Tyr | Phe | Arg | His | Ala | Gly | Asp | Arg | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Phe | Ala | Glu | Glu | Ser | Ala | Ile | Phe | Ser | Thr | Ala | Val | Arg | Cys | Val | Leu | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Ala | Ser | Glu | Gly | His | Leu | Thr | Asn | Lys | Ser | Ile | Ile | Leu | Trp | Leu | Ile | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gln | Thr | Leu | Glu | Ser | Thr | Asp | Asp | Val | Val | Lys | Ala | Asp | Val | Ile | Arg | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Lys | Thr | Leu | Glu | Ile | Val | Val | Gly | Tyr | Thr | Met | Asp | Asp | Leu | Tyr | Arg | |
| | | | | 85 | | | | 90 | | | | | | 95 | | |
| Leu | Thr | Leu | Pro | Ile | Ser | Ser | Asp | Ser | Val | Ser | Ser | Ser | Ile | Leu | Thr | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Asn | Gly | Leu | Thr | Ile | Thr | Cys | Pro | Leu | Ser | Pro | Asn | Ala | Leu | | | |
| | | 115 | | | | | | 120 | | | | | 125 | | | |

<210> 7156

<211> 728

<212> PRT

<213> Enterobacter cloacae

<400> 7156

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Thr | Leu | Leu | His | Phe | Leu | Thr | Gly | Leu | Leu | Leu | Met | Lys | Lys | Ile | Ala | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ser | Val | Cys | Pro | Tyr | Cys | Gly | Ala | Gly | Cys | Lys | Leu | Asn | Leu | Val | Val | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Lys | Asn | Asn | Arg | Ile | Ile | Arg | Ala | Glu | Ala | Ala | Asp | Gly | Val | Thr | Asn | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Gln | Gly | Thr | Leu | Cys | Leu | Lys | Gly | Phe | Tyr | Gly | Trp | Asp | Phe | Leu | Asn | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Asp | Thr | Arg | Leu | Leu | Thr | Pro | Arg | Leu | Thr | Gln | Pro | Met | Ile | Arg | Tyr | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Lys | Gly | Glu | Ala | Phe | Thr | Pro | Val | Thr | Trp | Glu | Glu | Ala | Ile | Arg | |
| | | | | 85 | | | | 90 | | | | | | 95 | | |
| Tyr | Thr | Ala | Tyr | Arg | Leu | Lys | Ser | Ile | Lys | Glu | Gln | Tyr | Gly | Pro | Arg | |
| | | | 100 | | | | 105 | | | | | | 110 | | | |
| Ser | Ile | Met | Thr | Thr | Gly | Ser | Ser | Arg | Gly | Thr | Gly | Asn | Glu | Thr | Asn | |
| | 115 | | | | | | 120 | | | | | 125 | | | | |
| Tyr | Val | Met | Gln | Lys | Phe | Ala | Arg | Ala | Val | Leu | Asn | Thr | Asn | Asn | Val | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Asp | Cys | Cys | Ala | Arg | Val | Cys | His | Gly | Pro | Ser | Val | Ala | Gly | Leu | Gln | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | Thr | Leu | Gly | Asn | Gly | Ala | Met | Ser | Asn | Ser | Ile | Asn | Asp | Ile | Glu | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Asn | Ser | Lys | Cys | Leu | Leu | Val | Phe | Gly | Tyr | Asn | Cys | Ala | Asp | Ser | His | |
| | | 180 | | | | | | 185 | | | | | 190 | | | |
| Pro | Ile | Val | Ala | Arg | Arg | Val | Leu | Lys | Ala | Arg | Glu | Asn | Gly | Ala | Lys | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Ile | Ile | Val | Cys | Asp | Pro | Arg | His | Ile | Glu | Thr | Ala | Arg | Ile | Ala | Asp | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Leu | His | Leu | Gln | Leu | Lys | Asn | Gly | Ser | Asn | Met | Ala | Leu | Val | Asn | Ala | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Phe | Gly | Tyr | Val | Leu | Leu | Glu | Glu | Glu | Leu | Tyr | Asp | Lys | Asn | Tyr | Val | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Ala | Arg | Phe | Thr | Glu | Gly | Leu | Glu | Ala | Tyr | Arg | Leu | Thr | Val | Lys | Asp | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |

Tyr Ala Pro Glu Gln Val Glu His Leu Thr Gly Ile Pro Ala Arg Asp
 275 280 285
 Val Arg Gln Ala Met Arg Met Phe Ala Ala Pro Ser Ala Thr Val
 290 295 300
 Met Trp Gly Met Gly Val Thr Gln Phe Gly Gln Ala Val Asp Val Val
 305 310 315 320
 Lys Gly Leu Ser Ser Leu Ala Leu Leu Thr Gly Asn Leu Gly Arg Pro
 325 330 335
 Ala Val Gly Val Gly Pro Val Arg Gly Gln Asn Asn Val Gln Gly Ala
 340 345 350
 Cys Asp Met Gly Val Leu Pro Asn Met Phe Pro Gly Tyr Gln Asp Val
 355 360 365
 Thr Asp Pro Ala Val Arg Leu Lys Phe Ala Asp Ala Trp Lys Ile Asn
 370 375 380
 Val Asn Arg Met Asp Asp Arg Val Gly Thr Arg Ile Thr Glu Val Pro
 385 390 395 400
 His Leu Ala Leu Glu Gly Lys Ile Lys Ala Tyr Tyr Ile Met Gly Glu
 405 410 415
 Asp Pro Leu Gln Thr Glu Ala Asp Leu Gly Leu Val Arg Arg Gly Phe
 420 425 430
 Glu Ala Leu Asp Phe Val Val Val Gln Asp Ile Phe Met Thr Lys Thr
 435 440 445
 Ala Glu Leu Ala Asp Val Leu Leu Pro Ala Thr Ser Trp Gly Glu His
 450 455 460
 Ala Gly Val Phe Thr Cys Ala Asp Arg Gly Phe Gln Arg Phe Gly Lys
 465 470 475 480
 Ala Ile Glu Pro Ser Gly Asn Val Arg Arg Asp Trp Glu Ile Ile Ser
 485 490 495
 Leu Leu Ala Thr Glu Met Gly Tyr Pro Met His Tyr Glu Asp Asn Gln
 500 505 510
 Gln Ile Trp Asp Glu Met Arg Glu Leu Cys Pro Leu Phe Tyr Gly Val
 515 520 525
 Thr Tyr Glu Lys Met Gly Glu Met Gly His Val Gln Trp Pro Cys Pro
 530 535 540
 Thr Leu Asp His Pro Gly Thr Pro Tyr Leu Tyr Lys Asp Asn Gln Phe
 545 550 555 560
 Asp Thr Pro Thr Gly Lys Gly Gln Leu Phe Ala Ala Pro Trp Arg Ala
 565 570 575
 Pro Ala Glu Thr Pro Asp Ala Asp Tyr Pro Leu Val Leu Cys Thr Val
 580 585 590
 Arg Glu Val Gly His Tyr Ser Cys Arg Ser Met Thr Gly Asn Cys Ala
 595 600 605
 Ala Leu Gln Ser Leu Ala Asp Glu Pro Gly Arg Val Gln Ile Asn Pro
 610 615 620
 Ala Asp Ala Asp Glu Arg Gly Ile Ala Glu Gly Gln Leu Val Trp Val
 625 630 635 640
 Arg Ser Arg Arg Gly Lys Val Ile Thr Arg Ala Ser Ile Ser Glu Arg
 645 650 655
 Ile Asn Ala Gly Ala Ile Tyr Met Thr Tyr Gln Trp Trp Ile Gly Ala
 660 665 670
 Cys Asn Glu Leu Thr Gln Asp Asn Leu Asp Pro Ile Ser Arg Thr Pro
 675 680 685
 Glu Thr Lys Tyr Cys Ala Val Gln Leu Glu Ala Ile Glu Asp Gln Arg
 690 695 700
 Trp Ala Glu Asp Phe Ala Ala Ser Ala Tyr Gln Thr Met Lys Thr Arg
 705 710 715 720
 Leu Ile Ala Ala Val Asn Val
 725

<210> 7157

<211> 229

<212> PRT

<213> Enterobacter cloacae

<400> 7157

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Pro | Leu | Thr | Leu | Thr | Ser | Ala | Ser | Ala | Gly | Val | Ile | Ile | Gly | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Arg | Val | Ile | Phe | Asp | Gly | Ala | Lys | Lys | Glu | Ala | Ser | Ile | Asn | Ile |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Thr | Asn | Pro | Asp | Asn | Gly | Pro | Tyr | Leu | Ile | Gln | Ser | Trp | Ile | Asp | Val |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gln | Asp | Glu | Gln | Ser | Gly | Lys | Ala | Pro | Phe | Ile | Ile | Thr | Pro | Pro | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Tyr | Arg | Leu | Asp | Gly | Gly | Gln | Lys | Asn | Leu | Glu | Arg | Ile | Val | Met | Thr |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Ser | Leu | Pro | Gln | Gly | Gln | Glu | Ser | Leu | Phe | Trp | Leu | Asn | Ile | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ile | Pro | Ser | Ala | Ser | Lys | Gln | Met | Asn | Ser | Leu | Gln | Ile | Ala | Val |
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| Lys | Thr | Arg | Ile | Lys | Leu | Ile | Tyr | Arg | Pro | Glu | Ala | Leu | Arg | Ala | Ser |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Thr | Pro | Glu | Glu | Gln | Ala | Asn | Lys | Leu | Thr | Trp | Arg | Arg | Ala | Gly | Asn |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Thr | Leu | Leu | Val | Asn | Asn | Pro | Thr | Pro | Tyr | Val | Ile | Asn | Phe | Asn | Glu |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ile | Thr | Leu | Gly | Asn | Lys | Lys | Leu | Asp | Asp | Val | Thr | Tyr | Val | Met | Pro |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ser | Gly | Thr | Ala | Arg | Phe | Pro | Leu | Pro | Asn | Gly | Thr | Ser | Gly | Asn | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Thr | Phe | Lys | Val | Ile | Asn | Asp | Tyr | Gly | Ser | Pro | Gly | Glu | Leu | His |
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| Met | Gln | Pro | Ala | Arg | Leu | Ala | Ile | Phe | Ile | Ala | Leu | Ala | Leu | Ala | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ser | Pro | Thr | Leu | Tyr | Ala | Ser | Glu | Thr | Phe | Asn | Thr | Glu | Leu | Val |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Glu | Leu | Asp | Asn | Pro | Gly | Met | Gly | Lys | Ala | Asp | Leu | Ser | Ala | Phe | Glu |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Gly | Ser | Gln | Ala | Pro | Gly | Thr | Tyr | His | Val | Asp | Ile | Ile | Leu | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Asp | Arg | Leu | Leu | Glu | Thr | Arg | Asp | Ile | Arg | Phe | Met | Ala | Val | Lys | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ala | Asn | Gly | Ser | Glu | Thr | Leu | Gln | Pro | Cys | Leu | Ser | Ile | Gly | Gln | Leu |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Lys | Ala | Trp | Gly | Val | Lys | Thr | Ala | Leu | Phe | Pro | Gln | Leu | Asp | Ala | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Gly | Glu | Cys | Ala | Asp | Leu | Arg | Ala | Ile | Pro | Gln | Ala | Ser | Ala | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Gln | Phe | Gly | Ala | Gln | Arg | Leu | Ala | Ile | Ser | Ile | Pro | Gln | Ala | Ala |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asp | Leu | Pro | Ala | Arg | Gly | Tyr | Val | Pro | Pro | Asp | Met | Trp | Asp | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Ile | Thr | Ala | Ala | Met | Leu | Asn | Tyr | Ser | Leu | Ser | Gly | Ala | Asn | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Ala | Arg | Ser | Gly | Ala | Gly | Thr | Arg | Ser | Asp | Ser | Gln | Tyr | Ala | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Arg | Pro | Gly | Ile | Asn | Val | Gly | Pro | Trp | Arg | Leu | Arg | Asn | Tyr | Thr |
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| Thr | Trp | Ser | Arg | Asp | Ala | Ser | Gly | Leu | Asp | Lys | Trp | Asp | Asn | Val | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Thr | Leu | Met | Gln | Arg | Ala | Ile | Ile | Pro | Leu | Gln | Ala | Gln | Leu | Thr | Leu |
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| Gly | Asp | Ser | Ser | Ala | Pro | Ala | Asp | Val | Phe | Asp | Ser | Met | Pro | Phe | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Val | Gln | Leu | Ala | Ser | Asp | Asp | Asp | Met | Leu | Pro | Asp | Ser | Leu | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Tyr | Ala | Pro | Val | Val | Arg | Gly | Ile | Ala | Arg | Thr | Asn | Ala | Gln | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Val | Arg | Gln | Asn | Gly | Tyr | Gln | Ile | Tyr | Gln | Ser | Tyr | Val | Ala | Pro |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Ala | Phe | Glu | Ile | Ala | Asp | Met | Tyr | Pro | Thr | Gly | Gly | Ala | Gly | Asp |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Asp | Val | Thr | Ile | Val | Glu | Ala | Asp | Gly | Ser | Glu | Gln | His | Phe | Thr |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Pro | Tyr | Ala | Ser | Leu | Pro | Val | Leu | Gln | Arg | Glu | Gly | Arg | Leu | Lys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Tyr | Ala | Leu | Thr | Ala | Gly | Gln | Tyr | Arg | Ser | Tyr | Asn | Arg | Ser | Val | Glu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Lys | Thr | Pro | Phe | Gly | Gln | Leu | Thr | Gly | Ile | Tyr | Gly | Leu | Pro | His | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ile | Thr | Leu | Tyr | Gly | Gly | Val | Gln | Gly | Ala | Asp | Lys | Tyr | Gln | Ser | Ala |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ala | Leu | Gly | Met | Gly | Lys | Asn | Met | Gly | Asp | Leu | Gly | Ala | Val | Ser | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Val | Thr | Leu | Gly | Trp | Ser | Thr | Pro | Glu | His | Thr | Ala | Lys | Thr | Asn |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Gly | Gln | Ser | Trp | Arg | Ala | Arg | Tyr | Ser | Lys | Asn | Phe | Ile | Thr | Thr | Gly |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Thr | Asn | Phe | Ser | Ile | Ala | Gly | Tyr | Arg | Tyr | Ser | Thr | Arg | Gly | Tyr | Tyr |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gly | Met | Gln | Asp | Val | Leu | Gly | Ser | Tyr | Gly | Asp | Ser | Ser | Ala | Leu | Gln |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Asp | Arg | Arg | Arg | Asn | Arg | Ala | Glu | Leu | Thr | Met | Ser | Gln | Thr | Leu | Gly |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Asp | Asn | Leu | Gly | Ala | Leu | Thr | Leu | Ser | Ala | Ala | Arg | Glu | Asp | Tyr | Trp |
| | 515 | | | | | | 520 | | | | | 525 | | | |
| Asn | Asp | Gly | Lys | Ser | Met | Ala | Ser | Trp | Ser | Val | Gly | Tyr | Ser | Asn | Tyr |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Trp | His | Asn | Ile | Ser | Tyr | Gly | Leu | Thr | Trp | Thr | Tyr | Ser | Lys | Asn | Val |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Arg | Ser | Ala | Ser | Glu | Asn | Arg | Lys | Ser | Gln | Lys | Asn | Ala | Asp | His | Asn |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Gln | Leu | Leu | Ser | Phe | Asn | Val | Ser | Ile | Pro | Leu | Asp | Lys | Phe | Leu | Pro |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Gln | Thr | Trp | Ala | Asn | Tyr | Gly | Met | Asn | Ala | Ser | Ser | Asn | Asn | Gly | Thr |
| | 595 | | | | | | 600 | | | | | 605 | | | |
| Thr | His | Asn | Val | Gly | Leu | Asn | Gly | Val | Ala | Leu | Glu | Asn | Arg | Ala | Leu |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ser | Trp | Asn | Val | Gln | Gln | Gly | Tyr | Gly | Thr | Glu | Gly | Val | Gly | Asn | Thr |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Gly | Asn | Val | Asn | Ala | Asp | Tyr | Lys | Gly | Thr | Tyr | Gly | Glu | Val | Thr | Ala |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 645 | | | | | 650 | | | | 655 | | | | |
| Gly | Tyr | Gly | Tyr | Asp | Lys | Asn | Ser | Glu | Arg | Leu | Asn | Tyr | Gly | Leu | Gln | | |
| | | | 660 | | | | | 665 | | | | | 670 | | | | |
| Gly | Gly | Ile | Leu | Ala | His | Ala | Asp | Gly | Ile | Thr | Leu | Ser | Gln | Pro | Leu | | |
| | | 675 | | | | | 680 | | | | | 685 | | | | | |
| Gly | Glu | Thr | Ser | Val | Leu | Ile | Lys | Ala | Pro | Gly | Ala | Tyr | Asp | Val | Asp | | |
| | 690 | | | | | 695 | | | | | 700 | | | | | | |
| Ile | Arg | Asn | Gln | Pro | Gly | Val | Arg | Thr | Asp | Phe | Arg | Gly | Tyr | Thr | Val | | |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 | | |
| Val | Ser | Asn | Leu | Ser | Val | Tyr | Arg | Lys | Asn | Asp | Leu | Thr | Leu | Asp | Pro | | |
| | | | 725 | | | | | | 730 | | | | | 735 | | | |
| Glu | Thr | Met | Pro | Asp | Asp | Val | Glu | Leu | Glu | Ile | Asn | Thr | Arg | Thr | Val | | |
| | | | 740 | | | | | 745 | | | | | 750 | | | | |
| Thr | Pro | Thr | Arg | Gly | Ala | Val | Val | Arg | Ala | Asp | Tyr | Leu | Pro | Lys | Ser | | |
| | | 755 | | | | | 760 | | | | | 765 | | | | | |
| Gly | Arg | Arg | Val | Leu | Met | Thr | Leu | Thr | Asp | Asn | Asp | Arg | Ala | Val | Pro | | |
| | 770 | | | | | 775 | | | | 780 | | | | | | | |
| Phe | Gly | Ala | Val | Val | Thr | Leu | Val | Gly | Asp | Glu | Ser | Gly | Ser | Phe | Ile | | |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 | | |
| Val | Gly | Asp | Arg | Gly | Gln | Val | Tyr | Leu | Thr | Gly | Met | Arg | Glu | Gln | Gly | | |
| | | | | 805 | | | | | 810 | | | | | 815 | | | |
| Thr | Leu | Val | Ala | Thr | Trp | Gly | Ser | Gln | Ser | Ser | Gln | Gln | Cys | Arg | Ala | | |
| | | | 820 | | | | | 825 | | | | | 830 | | | | |
| Asp | Phe | Thr | Leu | Pro | Asn | His | Ser | Met | Tyr | Gly | Gly | Ile | Ala | Asp | Met | | |
| | | 835 | | | | | 840 | | | | | 845 | | | | | |
| Arg | Ala | Thr | Cys | Arg | Gln | Glu | Arg | | | | | | | | | | |
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<211> 227

<212> PRT

<213> Enterobacter cloacae

<400> 7159

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| Arg | Cys | Thr | Ala | Gly | Asp | Glu | Gln | Pro | Thr | Ile | Phe | Ala | Thr | Val | Cys | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Arg | Gly | Ala | Arg | Asp | Val | Ala | Ile | Asn | Gly | Pro | Ile | Leu | Pro | Asp | Val | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Asn | Pro | Arg | Gly | Val | Arg | Phe | Ser | Glu | Cys | Leu | Arg | His | Pro | Glu | Phe | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Asp | Leu | Pro | Val | Ala | Gly | Lys | Lys | Met | Lys | Ile | Arg | Cys | Arg | Thr | Leu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Leu | Leu | Leu | Ala | Leu | Leu | Ser | Gly | Lys | Val | Cys | Ser | Ala | Asp | Ser | Val | | |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 | | |
| Asn | Ile | Gly | Val | Thr | Gly | Asn | Ile | Val | Ala | Ser | Pro | Cys | Ile | Phe | Asn | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Gly | Gly | Asn | Asn | Asn | Leu | Asp | Val | Asn | Leu | Gly | Asn | Ile | Gln | Ala | Thr | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Asn | Met | Ala | Thr | Pro | Gly | Ser | Thr | Ser | Asp | Pro | Val | Pro | Phe | Ser | Leu | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Phe | Thr | Gln | Cys | Pro | Thr | Gly | Thr | Gln | Ser | Val | Thr | Val | Ala | Phe | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Thr | Gly | Ser | Pro | Asp | Pro | Glu | Ala | Gly | Ala | Asp | Tyr | Phe | Met | Asn | Ser | | |
| | 145 | | | | 150 | | | | | 155 | | | | | 160 | | |
| Gly | Ser | Ala | Thr | His | Val | Ala | Ile | Ala | Met | Arg | Asp | Ala | Gln | Thr | Gly | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Ala | Leu | Lys | Gly | Thr | Gly | Ser | Ser | Met | Thr | Gln | Thr | Ile | Ala | Ala | Asp | | |
| | | 180 | | | | | | 185 | | | | | 190 | | | | |
| Arg | Thr | Ala | Thr | Leu | Ala | Met | Leu | Ala | Ser | Val | Lys | Ser | Met | Thr | Gly | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
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210
Tyr Asn
225

215

220

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<400> 7160

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| Cys | Ala | Ile | Thr | Glu | Phe | Ser | Pro | Arg | Val | Phe | Val | Val | Thr | Pro | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Phe | Arg | Ile | Ser | Met | Leu | Thr | Thr | Ile | Ile | Tyr | Arg | Ser | His | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Cys | Glu | Asp | Val | Pro | Val | Lys | Ala | Leu | Glu | Asp | Met | Val | Ala | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Cys | Arg | Asn | Arg | Gln | Phe | Asp | Val | Thr | Gly | Ile | Leu | Leu | Phe | Asn |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | Thr | His | Phe | Phe | Gln | Leu | Leu | Glu | Gly | Pro | Ala | Asp | Asn | Val | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Ile | Tyr | Gln | Leu | Ile | Cys | Arg | Asp | Pro | Arg | His | His | Asn | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Leu | Leu | Ser | Asp | His | Gly | Pro | Ser | Arg | Arg | Phe | Gly | Asn | Val | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Glu | Leu | Phe | Asp | Leu | Arg | Gln | Tyr | Asp | Thr | Asp | Glu | Val | Leu | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Val | Leu | Asp | Lys | Gly | Thr | Thr | Arg | Tyr | Gln | Leu | Thr | Tyr | Asn | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Ala | Leu | Gln | Phe | Phe | Arg | Thr | Phe | Val | Glu | Ala | Thr | Glu | Lys | Ala |
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| Asn | Tyr | Phe | Glu | Leu | Pro | Pro | Ala | Asp | Ala | Trp | Glu | Phe | Val | Thr | Glu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Asn | Thr | Pro | Leu | Ser | Ser | Gln | Pro | Thr | Val | Val | Ala | Lys | Gly | Ala | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Cys | Ser | Phe | Ala | Phe | Gln | Pro | Ile | Val | Asp | Pro | Phe | Met | Gln | Gln | Val |
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| Val | Ser | Trp | Glu | Ala | Leu | Ile | Arg | Thr | Pro | Ser | Gly | Glu | Ser | Pro | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Tyr | Phe | Ala | Asn | Leu | Ser | Arg | Glu | Ala | Leu | Tyr | Glu | Ser | Asp | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Ser | Lys | Gln | Val | Ala | Leu | Ser | Met | Ala | Ser | Ala | Leu | Gly | Leu | Gln |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Thr | Gln | Thr | Leu | Ser | Ile | Asn | Leu | Leu | Pro | Met | Thr | Leu | Val | Asn | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Gly | Ala | Val | Asp | Phe | Leu | Leu | Thr | Ala | Ile | Glu | Ala | Asn | Gly | Phe |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Val | Pro | Glu | Gln | Ile | Val | Val | Glu | Phe | Thr | Glu | Ser | Glu | Ala | Ile | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Arg | Phe | Glu | Glu | Phe | Thr | Ser | Ala | Val | Arg | Gln | Leu | Lys | Ser | Ala | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Ser | Val | Ala | Ile | Asp | His | Phe | Gly | Ala | Gly | Phe | Ala | Gly | Leu | Gln |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Leu | Ala | Gln | Phe | Gln | Pro | Asp | Arg | Ile | Lys | Ile | Asn | Arg | Asp | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Ala | Asn | Val | His | Lys | Ser | Gly | Pro | Arg | Gln | Ala | Ile | Ile | Gln | Ser |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Ile | Ile | Lys | Cys | Cys | Ala | Ser | Leu | Glu | Ile | Leu | Phe | Cys | Ala | Val | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Val | Glu | Leu | Ala | Glu | Glu | Trp | Met | Trp | Leu | Glu | Ser | Ala | Gly | Ile | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gln | Phe | Gln | Gly | His | Leu | Phe | Ala | Ser | Pro | Arg | Leu | Gly | Gly | Ile | Pro |

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| Ala | Trp | Arg | Gly | Leu | Thr | Leu | Thr | Pro | Ala | Ala | Ala | Ala | His | Ile | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Leu | Val | Ala | Lys | Asn | Pro | Asp | Ile | Leu | Gly | Val | Arg | Leu | Gly | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Gln | Thr | Gly | Cys | Ala | Gly | Phe | Gly | Tyr | Val | Leu | Asp | Thr | Val | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Pro | Glu | Lys | Asp | Asp | Leu | Val | Phe | Glu | Thr | Asp | Gly | Ala | Lys | Leu |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Tyr | Val | Ala | Leu | Gln | Ala | Met | Pro | Phe | Ile | Asp | Gly | Thr | Glu | Val | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Val | Arg | Glu | Gly | Leu | Asn | Gln | Leu | Phe | Lys | Phe | His | Asn | Pro | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
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<210> 7163

<211> 439

<212> PRT

<213> Enterobacter cloacae

<400> 7163

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Gly | Leu | Pro | Asn | Ser | Ser | Asn | Ala | Leu | Gln | Gln | Trp | His | Arg | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Glu | Ala | Gln | Ala | Gly | Ala | Arg | Ser | Glu | Gln | Ala | Gln | His | His | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Gln | Met | Leu | Arg | Leu | Gly | Leu | Pro | Thr | Arg | Lys | His | Glu | Asn | Trp |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Lys | Tyr | Thr | Pro | Leu | Asp | Gly | Leu | Leu | Asn | Gly | Glu | Phe | Val | Thr | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Ala | Gln | Val | Ser | Pro | Gly | Gln | Arg | Asp | Val | Leu | Ala | Leu | Ser | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Ala | Val | Arg | Leu | Val | Phe | Val | Asp | Gly | Gln | Phe | Arg | Glu | Glu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Asp | Ser | Val | Gln | Glu | Ser | Gly | Phe | Asp | Ile | Val | Ile | Asn | Asp | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Gln | Ser | Leu | Asn | Ala | Pro | Val | Gln | Pro | Glu | Val | Phe | Leu | His | Leu |
| | | | | | | 135 | | | | | 140 | | | | |
| Thr | Glu | Ser | Leu | Ser | Gln | Ser | Val | Thr | His | Ile | Arg | Val | Lys | Arg | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Arg | Pro | Ala | Lys | Pro | Leu | Leu | Leu | Met | His | Ile | Thr | Gln | Gly | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Gly | Asp | Glu | Ile | Asn | Thr | Ala | His | Tyr | Arg | His | His | Leu | Glu | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Glu | Gly | Ala | Glu | Ala | Thr | Val | Ile | Glu | His | Tyr | Val | Ser | Leu | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Thr | Arg | His | Phe | Thr | Gly | Ser | Arg | Leu | Thr | Met | Asn | Val | Ala | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Ala | Gln | Leu | His | His | Ile | Lys | Leu | Ala | Phe | Glu | Asn | Pro | Leu | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | His | Phe | Ala | His | Asn | Asp | Ile | Leu | Leu | Gly | Gln | Asp | Ala | Ala | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Tyr | Ser | His | Ser | Phe | Leu | Leu | Gly | Gly | Ala | Val | Leu | Arg | His | Asn | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Thr | Gln | Leu | Asn | Gly | Glu | Asn | Thr | Thr | Leu | Arg | Ile | Asn | Ser | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Met | Pro | Val | Lys | Ser | Glu | Val | Cys | Asp | Thr | Arg | Thr | Trp | Leu | Glu |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| His | Asn | Lys | Gly | Tyr | Cys | Asn | Ser | Arg | Gln | Leu | His | Lys | Thr | Ile | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ser | Asp | Lys | Gly | Arg | Ala | Val | Phe | Asn | Gly | Leu | Ile | Asn | Val | Ala | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| His | Ala | Ile | Lys | Thr | Asp | Gly | Gln | Met | Thr | Asn | Asn | Asn | Leu | Leu | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gly | Arg | Leu | Ala | Glu | Val | Asp | Thr | Lys | Pro | Gln | Leu | Glu | Ile | Tyr | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Asp | Val | Lys | Cys | Ser | His | Gly | Ala | Thr | Val | Gly | Arg | Ile | Asp | Asp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Glu | Gln | Met | Phe | Tyr | Leu | Arg | Ser | Arg | Gly | Ile | Asp | Gln | Gln | Ala | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gln | Lys | Met | Ile | Ile | Tyr | Ala | Phe | Ala | Ala | Glu | Leu | Thr | Glu | Ala | Leu |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Pro | Asp | Gly | Gly | Leu | Lys | Gln | Gln | Val | Leu | Ala | Arg | Ile | Gly | Gln | Arg |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Pro | Gly | Gly | Glu | Ala | | | | | | | | | | |
| | | | 435 | | | | | | | | | | | | |

<210> 7164

<211> 355

<212> PRT

<213> Enterobacter cloacae

<400> 7164

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | His | Gly | Glu | Val | Asn | Pro | Ala | Ser | Asn | Ala | Ala | Leu | Ile | Ser |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Arg | Cys | Arg | Ile | Thr | Gln | Cys | Thr | Val | Gly | Ser | Leu | Ile | Cys | Ala | Pro |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Pro | Ala | Val | Arg | Asn | Ala | Asn | Met | Lys | Cys | Leu | Asn | Ser | Met | Leu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Cys | Leu | Leu | Ala | Ala | Gly | Ser | Ile | Ala | Arg | Ala | Gly | Thr | Cys | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Ile | Ile | Pro | Gln | Leu | Ser | Thr | Leu | Ser | Val | Gly | Thr | Ile | Asn | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Arg | Asp | Ala | Pro | Val | Gly | Thr | Val | Val | Phe | Ser | Gly | Ala | Ala | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Thr | Gly | Ser | Tyr | Leu | Thr | Gly | Cys | Thr | Asn | Pro | Leu | Met | Leu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ser | Met | Arg | Tyr | Asn | Ser | Ala | Thr | Leu | Ser | Ser | Tyr | Gly | Asn | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Tyr | Asn | Thr | Asn | Val | Ile | Gly | Ile | Gly | Ile | Arg | Phe | Ser | Ser | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Tyr | Phe | Glu | Asn | Pro | Ser | Asn | Thr | Phe | Ser | Tyr | Asn | Ala | Gln | Thr |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ser | Tyr | Val | Asp | Trp | Tyr | Gly | Gly | Arg | Ile | Glu | Leu | Val | Val | Thr | Gly |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Pro | Val | Ser | Ser | Gly | Ala | Leu | Thr | Pro | Gly | Val | Ile | Gly | Val | Val | Thr |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Gln | Gly | Ser | Asp | Gly | Leu | Tyr | Arg | Asp | Gly | Leu | Thr | Thr | Gln | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Ser | Gly | Asn | Ile | Asn | Ala | Leu | Ala | Cys | Thr | Val | Asn | Thr | Ala | Gln |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Leu | Thr | Phe | Pro | Ile | Gly | Asp | Ile | Pro | Ala | Ser | Ala | Phe | Gly | Thr | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Gly | Thr | Thr | Pro | Ala | Gly | Ala | Gln | Asn | Thr | Gln | Asn | Leu | Gly | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Cys | Ala | Ala | Gly | Thr | Asn | Ile | Thr | Val | Ser | Leu | Ser | Gly | Ile | Gln |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Asn | Pro | Asp | Ser | Ala | Asn | Thr | Ser | Val | Met | Ala | Leu | Thr | Gly | Gln | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asn | Ala | Gly | Thr | Ala | Lys | Gly | Val | Gly | Val | Gln | Leu | Ile | Tyr | Asn | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Pro | Leu | Ala | Met | Asn | Ser | Arg | Leu | Phe | Leu | Arg | Gln | Ser | Ala | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Gln | Glu | Thr | Leu | Pro | Leu | Thr | Ala | Arg | Tyr | Tyr | Gln | Thr | Leu | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Val | Glu | Ser | Gly | Ser | Ala | Asn | Ala | Ser | Ala | Thr | Leu | Asn | Leu | Thr |
| | | | 340 | | | | | 345 | | | | | 350 | | |

Tyr Gln
355

<210> 7165
<211> 178
<212> PRT
<213> Enterobacter cloacae

<400> 7165
Gly Thr Gly His Val Pro Arg Ile Ala Gly Asp Val Gln His Asn Gly
1 5 10 15
Arg Gly Arg Gln Thr Gly Gly Gly Ile Lys Thr Tyr Ser Ser Ala Ala
20 25 30
Trp Leu Thr Glu Arg Arg Glu Met Ala Asp Leu Pro Asp Arg Asp Lys
35 40 45
Leu Leu Arg Asn Phe Gly Arg Cys Ala Asn Trp Glu Glu Lys Tyr Leu
50 55 60
Tyr Ile Ile Glu Leu Gly Gln Arg Leu Pro Pro Leu Ser Glu Glu Ala
65 70 75 80
His Asn Pro Asp Asn Ile Ile Gln Gly Cys Gln Ser Gln Val Trp Ile
85 90 95
Gln Met Gln Gln Thr Asp Asp Val Val Ile Asp Leu Gln Gly Asp Ser
100 105 110
Asp Ala Ala Ile Val Lys Gly Leu Ile Ala Val Val Phe Ile Leu Tyr
115 120 125
His Gln Met Ser Ala Gln Asp Ile Val Ala Phe Asp Val Arg Pro Trp
130 135 140
Phe Glu Lys Met Ala Leu Thr Gln His Leu Thr Pro Ser Arg Ser Gln
145 150 155 160
Gly Leu Glu Ala Met Ile Arg Ala Ile Arg Ala Lys Ala Ala Ile Leu
165 170 175
Ser

<210> 7166
<211> 282
<212> PRT
<213> Enterobacter cloacae

<400> 7166
Pro Glu Ser Pro Glu Arg Met Arg Leu Arg Arg Lys Leu Trp Gly Ile
1 5 10 15
Gly Gly Thr Met Ser Arg Asn Thr Glu Ala Thr Ser Asp Val Asn Thr
20 25 30
Trp Ser Gly Gly His Leu Asn Tyr Lys Glu Gly Phe Phe Thr Gln Leu
35 40 45
Gln Thr Asp Glu Leu Ala Lys Gly Ile Asn Glu Glu Val Val Arg Ala
50 55 60
Ile Ser Ala Lys Arg Asn Glu Pro Glu Trp Met Leu Glu Phe Arg Leu
65 70 75 80
Ser Ala Phe Arg Ala Trp Leu Glu Met Glu Glu Pro His Trp Leu Lys
85 90 95
Ala His Tyr Asp Lys Leu Asn Tyr Gln Asp Tyr Ser Tyr Tyr Ser Ala
100 105 110
Pro Ser Cys Gly Ser Cys Asp Asp Thr Cys Ala Ser Gln Pro Gly Ala
115 120 125
Val Gln Gln Thr Gly Ala Glu Asn Ser Phe Leu Ser Lys Glu Val Glu
130 135 140
Glu Ala Phe Asn Gln Leu Gly Val Pro Val Arg Glu Gly Lys Glu Val
145 150 155 160
Ala Val Asp Ala Ile Phe Asp Ser Val Ser Val Ala Thr Thr Tyr Arg

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 165 | | | | 170 | | | | | 175 | | | | |
| Glu | Lys | Leu | Ala | Glu | Gln | Gly | Ile | Ile | Phe | Cys | Ser | Phe | Gly | Glu | Ala | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ile | His | Asp | His | Pro | Glu | Leu | Val | Lys | Lys | Tyr | Ile | Gly | Thr | Val | Val | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Pro | Ser | Asn | Asp | Asn | Phe | Phe | Ala | Ala | Leu | Asn | Ala | Ala | Val | Ala | Ser | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Asp | Gly | Thr | Phe | Ile | Tyr | Val | Pro | Lys | Gly | Val | Arg | Cys | Pro | Met | Glu | | |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 | | |
| Leu | Ser | Thr | Tyr | Phe | Arg | Ile | Asn | Ala | Glu | Lys | Thr | Gly | Gln | Phe | Glu | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Arg | His | Ile | Leu | Val | Ala | Asp | Glu | Ser | Ser | Tyr | Val | Ser | Tyr | Ile | Glu | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Gly | Cys | Ser | Ala | Pro | Val | Arg | Asp | Ser | | | | | | | | | |
| | | 275 | | | | | 280 | | | | | | | | | | |

<210> 7167

<211> 234

<212> PRT

<213> Enterobacter cloacae

<400> 7167

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Gln | Leu | Gln | Pro | Gly | Val | Val | Glu | Val | Ile | Ile | His | Lys | Asp | Ala | Glu | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Val | Lys | Tyr | Phe | Thr | Val | Gln | Asn | Cys | Ser | Pro | Gly | Asp | Val | Asn | Thr | | |
| | | | 20 | | | | 25 | | | | | | 30 | | | | |
| Gly | Gly | Ile | Leu | Asn | Phe | Val | Thr | Lys | Arg | Ala | Leu | Cys | Glu | Gly | Glu | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Asn | Ser | Lys | Met | Ser | Trp | Thr | Gln | Ser | Glu | Thr | Gly | Ser | Ala | Ile | Thr | | |
| | | 50 | | | | 55 | | | | | 60 | | | | | | |
| Trp | Lys | Tyr | Pro | Ser | Cys | Ile | Leu | Arg | Gly | Asp | Asn | Ser | Ile | Gly | Glu | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Phe | Tyr | Ser | Val | Ala | Leu | Thr | Ser | Gly | His | Gln | Gln | Ala | Asp | Thr | Gly | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Thr | Lys | Met | Ile | His | Ile | Gly | Lys | Asn | Thr | Lys | Ser | Thr | Ile | Ile | Ser | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Lys | Gly | Ile | Ser | Ala | Gly | His | Ser | Gln | Asn | Ser | Tyr | Arg | Gly | Leu | Val | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Lys | Ile | Met | Pro | Thr | Ala | Thr | Asn | Ala | Arg | Asn | Phe | Thr | Gln | Cys | Asp | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Ser | Met | Leu | Ile | Gly | Ala | Asp | Cys | Gly | Ala | His | Thr | Phe | Pro | Tyr | Val | | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | | |
| Glu | Cys | Arg | Asn | Asn | Ser | Ala | Gln | Leu | Glu | His | Glu | Ala | Thr | Thr | Ser | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Arg | Ile | Gly | Glu | Asp | Gln | Leu | Phe | Tyr | Cys | Leu | Gln | Arg | Gly | Ile | Ser | | |
| | | | 180 | | | | 185 | | | | | | 190 | | | | |
| Glu | Glu | Asp | Ala | Ile | Ser | Met | Ile | Val | Asn | Gly | Phe | Cys | Lys | Asp | Val | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Phe | Ser | Glu | Leu | Pro | Leu | Glu | Phe | Ala | Val | Glu | Ala | Gln | Lys | Leu | Leu | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Ala | Ile | Ser | Leu | Glu | His | Ser | Val | Gly | | | | | | | | | |
| 225 | | | | | 230 | | | | | | | | | | | | |

<210> 7168

<211> 252

<212> PRT

<213> Enterobacter cloacae

<400> 7168

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Gly | Lys | His | Met | Leu | Ser | Ile | Lys | Asp | Leu | Gln | Val | Ser | Val | Glu | Glu | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |

Lys Glu Ile Leu Arg Gly Leu Asn Phe Asp Val Lys Pro Gly Glu Val
 20 25 30
 His Ala Ile Met Gly Pro Asn Gly Ser Gly Lys Ser Thr Leu Ser Ala
 35 40 45
 Thr Leu Ala Gly Arg Glu Asp Tyr Glu Val Thr Ser Gly Ser Val Glu
 50 55 60
 Phe Asn Gly Lys Asp Leu Leu Glu Met Ser Pro Glu Glu Arg Ala Gly
 65 70 75 80
 Glu Gly Ile Phe Met Ala Phe Gln Tyr Pro Val Glu Ile Pro Gly Val
 85 90 95
 Ser Asn Gln Phe Phe Leu Gln Thr Ala Leu Asn Ala Val Arg Lys Tyr
 100 105 110
 Arg Gly Leu Glu Ala Leu Asp Arg Phe Asp Phe Gln Asp Leu Met Glu
 115 120 125
 Glu Lys Ile Lys Leu Leu Lys Met Pro Glu Asp Leu Leu Thr Arg Ser
 130 135 140
 Val Asn Val Gly Phe Ser Gly Gly Glu Lys Lys Arg Asn Asp Ile Leu
 145 150 155 160
 Gln Met Ala Val Leu Glu Pro Ala Leu Cys Ile Leu Asp Glu Thr Asp
 165 170 175
 Ser Gly Leu Asp Ile Asp Ala Leu Lys Ile Val Ala Asp Gly Val Asn
 180 185 190
 Ser Leu Arg Asp Gly Asn Arg Ser Phe Ile Ile Val Thr His Tyr Gln
 195 200 205
 Arg Ile Leu Asp Tyr Ile Lys Pro Asp Tyr Val His Val Leu Tyr Gln
 210 215 220
 Gly Arg Ile Val Lys Ser Gly Asp Phe Thr Leu Val Lys Gln Leu Glu
 225 230 235 240
 Glu Gln Gly Tyr Gly Trp Leu Thr Glu Gln Gln
 245 250

<210> 7169

<211> 423

<212> PRT

<213> Enterobacter cloacae

<400> 7169

Thr Ala Gly Ala Gly Pro Tyr Arg Ser Ala Thr Ala Trp Arg Arg Ser
 1 5 10 15
 Met Thr Phe Pro Val Glu Lys Val Arg Ala Asp Phe Pro Val Leu Thr
 20 25 30
 Arg Glu Val Asn Gly Leu Pro Leu Ala Tyr Leu Asp Ser Ala Ala Ser
 35 40 45
 Ala Gln Lys Pro Asn Gln Val Val Asp Ala Glu Ala Glu Phe Tyr Arg
 50 55 60
 His Gly Tyr Ala Ala Val His Arg Gly Ile His Thr Leu Ser Ala Glu
 65 70 75 80
 Ala Thr Gln Arg Met Glu Asn Val Arg Thr Gln Val Ala Ala Phe Leu
 85 90 95
 Asn Ala Arg Ser Pro Glu Glu Leu Val Phe Val Arg Gly Thr Thr Glu
 100 105 110
 Gly Ile Asn Leu Val Ala Asn Ser Trp Gly Asn Ala Gln Val His Ala
 115 120 125
 Gly Asp Asn Ile Ile Ile Thr Gln Met Glu His His Ala Asn Ile Val
 130 135 140
 Pro Trp Gln Met Leu Cys Glu Arg Val Gly Ala Gln Leu Arg Val Ile
 145 150 155 160
 Pro Leu Asn Glu Asp Gly Thr Leu Gln Leu Glu Lys Leu Asp Ala Leu
 165 170 175
 Leu Asp Asp Arg Thr Arg Leu Val Ala Val Thr His Val Ser Asn Val
 180 185 190

Leu Gly Thr Glu Asn Pro Val Ala Leu Ile Val Asp Lys Ala His Gln
 195 200 205
 Ala Gly Ala Lys Val Leu Ile Asp Gly Ala Gln Ala Val Met His His
 210 215 220
 Ala Val Asp Val Gln Ala Leu Asp Cys Asp Phe Tyr Val Phe Ser Gly
 225 230 235 240
 His Lys Leu Tyr Gly Pro Thr Gly Ile Gly Val Leu Tyr Val Lys Glu
 245 250 255
 Asp Ile Leu Gln Ala Met Pro Pro Trp Glu Gly Gly Gly Ser Met Ile
 260 265 270
 Ala Thr Val Ser Leu Thr Glu Gly Thr Thr Tyr Ala Arg Ala Pro Trp
 275 280 285
 Arg Phe Glu Ala Gly Thr Pro Asn Thr Gly Gly Ile Ile Gly Leu Gly
 290 295 300
 Ala Ala Ile Ser Tyr Val Ser Glu Thr Gly Leu Ala Ala Ile Gln Glu
 305 310 315 320
 Tyr Glu Gln Leu Leu Met His Tyr Ala Leu Gln Glu Leu Ala Ser Val
 325 330 335
 Pro Glu Leu Thr Leu Tyr Gly Pro Ala Asp Arg Leu Gly Val Ile Ala
 340 345 350
 Phe Asn Leu Gly Lys His His Ala Tyr Asp Val Gly Ser Phe Leu Asp
 355 360 365
 Asn Tyr Gly Val Ala Val Arg Thr Gly His His Cys Ala Met Pro Leu
 370 375 380
 Met Ala Tyr Tyr Glu Val Pro Ala Met Cys Arg Ala Ser Leu Val Met
 385 390 395 400
 Tyr Asn Thr Thr Glu Glu Val Asp Arg Leu Val Ala Gly Leu Lys Arg
 405 410 415
 Ile His Gln Leu Leu Gly
 420

<210> 7170

<211> 203

<212> PRT

<213> Enterobacter cloacae

<400> 7170

Ile Arg Asn Leu Ser Met Lys Arg Ala Ser Leu Ile Thr Leu Leu Leu
 1 5 10 15
 Leu Gly Ser Leu Ser Ala Val Asn Ser Ala Arg Ala Val Asp Tyr Pro
 20 25 30
 Leu Pro Pro Ala Gly Ser Arg Leu Ile Gly Gln Asn Gln Thr Tyr Thr
 35 40 45
 Ile Gln Glu Gly Asp Asn Lys Leu Gln Ser Ile Ala Arg Arg Phe Asn
 50 55 60
 Thr Ala Ala Gln Leu Ile Leu Glu Thr Asn Asn Thr Ile Ala Pro Val
 65 70 75 80
 Asn Pro Ala Pro Gly Thr Val Ile Thr Ile Pro Ser Gln Met Leu Leu
 85 90 95
 Pro Asp Thr Glu Arg Glu Gly Ile Val Val Asn Leu Ala Glu Leu Arg
 100 105 110
 Leu Tyr Phe Tyr Pro Pro Gly Glu Asn Ile Val Gln Val Tyr Pro Leu
 115 120 125
 Gly Ile Gly Gln Leu Gly Leu Glu Thr Pro Val Ser Thr Thr Arg Val
 130 135 140
 Ser Gln Lys Ile Pro Asn His Thr Trp Thr Pro Thr Ala Gly Ile Arg
 145 150 155 160
 Ala Arg Ser Leu Ala Gln Gly Ile Lys Leu Pro His Val Val Pro Ala
 165 170 175
 Gly Pro Asn Asn Pro Leu Gly Arg Phe Ala Leu Arg Leu Gly Ile Gly
 180 185 190

Asn Gly Glu Tyr Ser Ala Asp Gly Pro Lys
 195 200

<210> 7171

<211> 165

<212> PRT

<213> Enterobacter cloacae

<400> 7171

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Gly | Ser | Met | Ala | Asn | Asp | Trp | Leu | Glu | Leu | Arg | Gln | His | Ala |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Glu | Thr | Gly | Ile | Glu | Thr | Ile | Lys | Ala | His | Phe | Glu | Gly | His | Ala | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Pro | His | Trp | His | Asp | Ser | Tyr | Leu | Val | Gly | Ile | Thr | Leu | Ser | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Gln | Gln | Phe | His | Cys | Arg | Arg | Glu | Arg | His | Arg | Ser | Gln | Pro | Gly |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Asp | Ala | Phe | Leu | Leu | Glu | Pro | Gly | Glu | Ile | His | Asp | Gly | Asp | Ala | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Glu | Gly | Gly | Phe | Thr | Tyr | Leu | Thr | Phe | Tyr | Leu | Asp | Glu | His | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Thr | His | Thr | Leu | Gln | Gly | Leu | Tyr | Asp | Ser | Thr | Pro | Gly | Ser | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Leu | His | Phe | Ala | Gln | Thr | Leu | Thr | Arg | Glu | Pro | Gln | Leu | Val | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Ile | Gly | Asp | Thr | Phe | Ala | Ser | Leu | His | Asn | Asp | Glu | Met | Lys | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Gln | Gln | Ser | Thr | Met | Asp | Asn | Leu | Leu | Ser | Gln | Ile | Thr | Thr | His |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | His | Trp | Arg | | | | | | | | | | | | |

165

<210> 7172

<211> 330

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (31)

<220>

<221> UNSURE

<222> (42)

<400> 7172

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Thr | Ser | Gln | Leu | Gln | Ser | Ser | Ala | Val | Ala | His | Arg | Ala | Arg |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Asp | Tyr | Leu | Tyr | Ala | His | Ile | Gly | Glu | Asn | Val | Gly | Leu | Ser | Xaa | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Arg | Glu | Thr | Gly | Thr | Asp | Arg | Phe | Xaa | Leu | Thr | Arg | Cys | Phe | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Glu | Phe | Thr | Trp | Ala | Arg | Thr | Pro | Gly | Leu | Ser | Ser | Cys | Asp | Trp |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gln | Arg | Pro | Asp | Arg | Cys | Trp | Arg | Val | Gly | Asn | Cys | Leu | Leu | Met | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Arg | Gln | Trp | Val | Leu | Pro | Ile | Lys | Ala | Ile | Leu | Val | Ala | Gly | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Val | His | Thr | Val | Phe | Leu | Arg | His | Thr | Thr | Ala | Gly | Cys | Ala | Gln |
| | | | 100 | | | | | 105 | | | | 110 | | | |
| Thr | Phe | Gln | Thr | Phe | Pro | Glu | Asn | Asn | Gly | Thr | Phe | Val | Ala | Leu | Ile |


```
<210> 7173
<211> 270
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|------------|---------|---------|---------|---------|---------|---------|--------|---------|--------|--------|-----|---------|---------|---------|---------|
| <400> 7173 | | | | | | | | | | | | | | | |
| Gly 1 | Ser | Phe | Asn | Gln 5 | Val | Phe | Arg | Arg | His 10 | Asn | Arg | Gln | Val | Gly 15 | His |
| Phe | Ser | Gln | Leu 20 | Leu | Tyr | Arg | Gln | Leu 25 | Leu | Ile | Ala | Ile | Trp 30 | Arg | Val |
| Gln | Ala | Cys 35 | Thr | Asp | Gly | Gly | Cys 40 | Ala | Gln | Val | His | Phe 45 | Gln | Gln | Gln |
| Phe | Gly 50 | Arg | Thr | Gln | Gln | Val 55 | Phe | Arg | Leu | Phe 60 | Val | Gln | Gln | His | Val |
| Lys 65 | Arg | Val | Glu | Phe 70 | Leu | Ser | Glu | Gly | His 75 | Trp | His | Arg | Val | Leu 80 | Gln |
| Leu | Gly | Thr | Ala | His 85 | Phe | Gln | Asn | Val 90 | Leu | Glu | Leu | Asn | Gly 95 | Phe | Thr |
| Leu | Glu | Ala | Ile 100 | Ala | Gln | Leu | Ile | Asn 105 | Arg | Val | Asp | Gln | Phe 110 | Asn | Asp |
| Arg | Gly | Ile 115 | His | Arg | Asp | Ala | Glu | Ala 120 | Gly | Trp | Val | Gly 125 | Val | Val | Gly |
| Gly | Leu 130 | Thr | Phe | Val | Asn | Val 135 | Val | Val | Arg | Val | Gln | Val 140 | Val | Leu | Val |
| Thr 145 | Phe | Leu | Met | Thr | His 150 | Gln | Leu | Gln | Ala | Asp | Val | Cys | Gln | His | Phe 160 |
| Val | Gly | Val | His | Val 165 | Asp | Arg | Gly | Ala | Arg | Ala | Ala | Leu | Ile | Asp 175 | Val |
| Asp | Arg | Glu | Leu 180 | Ile | His | Ala | Phe | Ala 185 | Val | Val | Gln | His | Leu 190 | Ile | Ala |
| Arg | Gly | Asp 195 | Asn | Arg | Ile | Cys | Ser | Ala 200 | Phe | Arg | Asn | Gly 205 | Leu | Gln | Leu |
| Phe | Val | Cys | Gln | Ser | Arg | Gly | Phe | Phe | Tyr | His | His | His | Ala | Thr | His |

| | | |
|---------------------|---------------------|-----------------------------|
| 210 | 215 | 220 |
| Lys Phe Arg Asp Val | Ala Asp Phe Ala Val | Ala Asp Val Glu Val Phe |
| 225 | 230 | 235 |
| Asn Arg Ser Gln Ser | Val Asn Thr Ile | Val Gly Ile Arg Trp Asn Phe |
| | 245 | 250 |
| Pro Gly Thr Gln Gln | Ile Phe Phe Asp Thr | Asn Val Val |
| | 260 | 265 |
| | | 270 |

<210> 7174

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 7174

| | | | |
|---------------------|-----------------|---------------------|-------------|
| Lys Arg Ser Gly Ala | Lys Thr Arg Tyr | Pro Lys Gly Tyr Tyr | Gln Asn |
| 1 | 5 | 10 | 15 |
| Ser Phe Lys Met Ser | Glu Glu Cys Gln | Arg Asn Leu Ala | Arg Arg Asn |
| | 20 | 25 | 30 |
| Ala Gln His Phe Ser | Phe Gly His Leu | Phe Ser Ile Arg | Phe Thr Arg |
| | 35 | 40 | 45 |
| Gly Gln Leu Leu Ser | Ser Leu Leu Lys | Thr Arg Asn Asn | Met Arg Ile |
| | 50 | 55 | 60 |
| Lys Val Cys Ala Gly | Ile Val Gly Ala | Ala Leu Leu Ala | Gly Cys |
| | 65 | 70 | 75 |
| Ser Thr Ser Asn Glu | Leu Thr Ala Ala | Gly Gln Ser Val | Arg Phe Val |
| | 85 | 90 | 95 |
| Glu Asp Lys Pro Gly | Ser Glu Cys Gln | Leu Leu Gly Thr | Ala Thr Gly |
| | 100 | 105 | 110 |
| Glu Gln Ser Asn Trp | Met Ser Gly Gln | His Gly Glu Glu | Gly Gly Ser |
| | 115 | 120 | 125 |
| Met Arg Gly Ala Ala | Asn Ala Leu Arg | Asn Gln Ala Ala | Ala Met Gly |
| | 130 | 135 | 140 |
| Gly Asn Val Ile Tyr | Gly Val Ser Ser | Pro Thr Gln Gly | Met Leu Ser |
| | 145 | 150 | 155 |
| Ser Phe Val Pro Thr | Ala Ser Gln Met | Asn Gly Gln Val | Tyr Lys Cys |
| | 165 | 170 | 175 |
| Pro Asn | | | |

<210> 7175

<211> 281

<212> PRT

<213> Enterobacter cloacae

<400> 7175

| | | | |
|---------------------|-----------------|-----------------|-----------------|
| Glu Val Ser Val Cys | Phe Asn Asn Gly | Ser Ser Gly Leu | Pro Phe Ser |
| 1 | 5 | 10 | 15 |
| Ile Arg Ala Thr | Asn Ala Arg Gly | Thr Arg Arg Ala | Lys Arg Phe |
| | 20 | 25 | 30 |
| Ala Ser Arg Pro | Ala Arg Asn Ala | Ser Cys Cys Ser | Arg Ser Lys Arg |
| | 35 | 40 | 45 |
| Arg Ser Asn Ser | Ser Gly Leu Val | Ile Thr Ser Ala | Ser Cys Asp Asn |
| | 50 | 55 | 60 |
| Gln Ser Ser Leu | Asp Gly Val Phe | Arg Val Thr Ile | Cys Ala Ile Leu |
| | 65 | 70 | 75 |
| Trp Leu Ser Tyr | Gln Leu Thr Asn | Leu Glu Gly Leu | Met Ala Thr Tyr |
| | 85 | 90 | 95 |
| Tyr Ser Asn Asp | Phe Arg Ala Gly | Leu Lys Ile Met | Met Asp Gly Glu |
| | 100 | 105 | 110 |
| Pro Tyr Ala Val | Glu Ala Ser Glu | Phe Val Lys Pro | Gly Lys Gly Gln |
| | 115 | 120 | 125 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Ala | Arg | Val | Lys | Leu | Arg | Arg | Leu | Leu | Thr | Gly | Thr | Arg | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Lys | Thr | Phe | Lys | Ser | Thr | Asp | Ser | Ala | Glu | Gly | Ala | Asp | Val | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | Met | Asn | Leu | Thr | Tyr | Leu | Tyr | Asn | Asp | Gly | Glu | Phe | Trp | His | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Met | Asn | Asn | Glu | Thr | Phe | Glu | Gln | Leu | Ser | Ala | Asp | Ala | Lys | Ala | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Asp | Asn | Ala | Lys | Trp | Leu | Leu | Asp | Gln | Ala | Glu | Cys | Ile | Val | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Trp | Asn | Gly | Gln | Pro | Ile | Ala | Val | Thr | Pro | Pro | Asn | Phe | Val | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Glu | Ile | Val | Glu | Thr | Asp | Pro | Gly | Leu | Lys | Gly | Asp | Thr | Ala | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Gly | Gly | Lys | Pro | Ala | Thr | Leu | Ser | Thr | Gly | Ala | Val | Val | Lys | Val |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Pro | Leu | Phe | Val | Gln | Ile | Gly | Glu | Val | Ile | Lys | Val | Asp | Thr | Arg | Ser |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Gly | Glu | Tyr | Val | Ser | Arg | Val | Lys | | | | | | | | |
| | 275 | | | | | | 280 | | | | | | | | |

<210> 7176

<211> 407

<212> PRT

<213> Enterobacter cloacae

<400> 7176

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gly | Val | Ile | His | Leu | Asn | Cys | Gly | Gln | Gln | Gly | Trp | Val | Gly | Trp |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Gln | His | Glu | Gln | Gly | Gly | Asn | Arg | Cys | Lys | Arg | Gly | Asn | Arg | Arg | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Arg | His | Ala | Gln | His | Gln | Cys | Arg | Arg | His | Gln | Arg | Phe | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ser | Leu | Gly | Val | Gln | Gln | Arg | Arg | Gly | Lys | Glu | Gln | His | Tyr | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Gln | Pro | Arg | Ile | Val | Val | Gln | Gln | Val | Ala | Cys | Asn | Gly | Leu | Asp |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Ile | Ala | Asp | Val | Arg | Phe | His | Lys | Gly | Ile | Thr | Glu | Pro | Arg | His | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | His | Ala | His | Ala | Gly | Ala | His | Thr | Gly | Phe | Glu | Gly | Ala | Gly | Val |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gln | His | Phe | Ala | Gly | Val | Asp | Phe | Thr | Gly | Asp | Ala | Asp | Gln | Arg | Arg |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Asp | Gly | Gln | His | Lys | His | His | Asn | Gly | Phe | Val | Thr | Arg | Gln | Asn | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Leu | Asp | Gln | Thr | Tyr | Arg | Val | Ala | Asp | Gly | Gly | Arg | Val | Glu | His |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| His | Gly | Asp | Asp | Thr | Asn | Gln | Lys | Gln | Gln | His | Gly | Ala | Phe | Cys | Met |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Arg | Leu | Gln | Leu | Glu | Asp | Leu | Ala | Thr | Ala | Gln | Ala | His | Phe | Thr | Phe |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Cys | Gln | Thr | Leu | Leu | Val | Asn | Arg | Ile | Val | Phe | Gln | Leu | Gly | Thr | Glu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Glu | Val | Thr | Gln | His | Gly | Ser | Asp | His | Tyr | Arg | Asn | Gln | Arg | Asp | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Thr | Asp | Cys | Gln | Gln | Arg | Gln | Val | Thr | Tyr | Ala | His | Trp | Leu | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Ala | Arg | Glu | Glu | Asp | His | Arg | Arg | Gly | Asn | Arg | Arg | Gly | Gly | Asn |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Arg | Asn | Leu | Gly | Gly | Asp | His | Gly | Asn | Arg | Lys | Arg | Ala | Arg | Arg | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |

Asn Thr Leu Leu Phe Arg His Phe Gly Asp Asp Arg Gln Arg Gly Glu
 275 280 285
 Gly Ser Met Ala Ser Thr Gly Glu Asn Gly His Lys Pro Gly His Gln
 290 295 300
 Arg Gly Lys Glu Gly Asp Val Phe Arg Met Ala Thr Gln His Thr Leu
 305 310 315 320
 Arg Gln Ala His Gln Val Val His Thr Ala Ser Asp Leu His Gly Arg
 325 330 335
 Asp Ser Ser Asn Asn Arg His Asp Asp Phe Asp Asn Val Lys Arg Asp
 340 345 350
 Cys Ala Gly Phe Asn Leu Lys Asp Gln Gly Lys Tyr Lys His Ser Glu
 355 360 365
 Thr Ala Ser Lys Thr Asp Ala Asp Ser Pro Glu Ser Cys Ala Gln Ile
 370 375 380
 Asn Arg Gln Gln Asp Asp Asp Glu Phe Cys Ser Lys His Lys Asp Leu
 385 390 395 400
 Pro Cys Ser Leu Thr Ser
 405

<210> 7177

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7177

Asn Leu Ala Asn Arg Arg His Leu Leu Ser Thr Arg Phe Ala Asn Thr
 1 5 10 15
 Phe Ser Gln Gly Gln Lys Ala Pro Ala Ile Gln Glu Met Pro Val Arg
 20 25 30
 Trp Ile Pro Phe Ile Ala Phe Phe Leu Tyr Val Tyr Ile Glu Ile Ser
 35 40 45
 Ile Phe Ile Gln Val Ala His Val Leu Gly Val Leu Leu Thr Leu Ile
 50 55 60
 Leu Val Ile Phe Thr Ser Val Ile Gly Met Ser Leu Val Arg Asn Gln
 65 70 75 80
 Gly Phe Lys Asn Phe Leu Leu Met Gln Gln Lys Met Ala Ala Gly Glu
 85 90 95
 Ser Pro Ala Ala Glu Met Ile Lys Ser Val Ser Leu Ile Ile Ala Gly
 100 105 110
 Leu Leu Leu Ile Leu Pro Gly Phe Thr Asp Phe Leu Gly Leu Leu
 115 120 125
 Leu Leu Leu Pro Pro Val Gln Lys His Leu Thr Met Lys Leu Leu Pro
 130 135 140
 His Leu Arg Phe Ser Arg Met Pro Gly Gly Gly Phe Ser Thr Gly Pro
 145 150 155 160
 Gly Asp Thr Phe Glu Gly Glu Tyr Gln Arg Lys Asp Glu Gln Arg Asp
 165 170 175
 Arg Leu Asp His Lys Asp Asp Arg
 180 185

<210> 7178

<211> 130

<212> PRT

<213> Enterobacter cloacae

<400> 7178

Lys Ala Ile Pro Ile Ser Gln Gly Thr Ser Arg Lys Thr Ala Cys Gly
 1 5 10 15
 Pro Ala Ser Ser Ile Thr Asp Asn Asp Phe Leu Lys Gly Glu Leu Ser
 20 25 30
 Met Ser Ile Arg Pro Leu His Asp Arg Val Ile Val Lys Arg Lys Glu


```

      35              40              45
Val  Glu Thr Lys Ser Ala Gly Gly Ile Val Leu Thr Gly Ser Ala Ala
   50              55              60
Ala  Lys Ser Thr Arg Gly Glu Ile Ile Ala Val Gly Lys Gly Arg Ile
   65              70              75              80
Leu  Glu Asn Gly Thr Val Gln Pro Leu Asp Val Lys Val Gly Asp Ile
      85              90              95
Val  Ile Phe Asn Asp Gly Tyr Gly Val Lys Ser Glu Lys Ile Asp Asn
      100              105              110
Glu  Glu Val Leu Ile Met Ser Glu Ser Asp Ile Leu Ala Ile Val Glu
      115              120              125
Ala
      130

```

<210> 7179

<211> 73

<212> PRT

<213> Enterobacter cloacae

<400> 7179

```

Thr  Arg Ile His Leu Gly Thr His Ala Trp Leu Ile Gln Leu Arg Leu
   1              5              10              15
Ala  Lys Ala Arg Gln Met Leu Ala Cys Gly Glu Leu Pro Val Asp Val
      20              25              30
Ala  Thr Ala Val Gly Phe Ala Asp Gln Ser His Leu Gly Arg Trp Phe
      35              40              45
Gln  Arg Ala Tyr Arg Ile Ser Pro Ala His Tyr Arg Arg Leu Cys Thr
      50              55              60
Asn  Leu Pro Asp Val Ser Arg Lys
   65              70

```

<210> 7180

<211> 553

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (381)

<400> 7180

```

Gly  Asn Lys Asn Met Ala Ala Lys Asp Val Lys Phe Gly Asn Asp Ala
   1              5              10              15
Arg  Val Lys Met Leu Arg Gly Val Asn Val Leu Ala Asp Ala Val Lys
      20              25              30
Val  Thr Leu Gly Pro Lys Gly Arg Asn Val Val Leu Asp Lys Ser Phe
      35              40              45
Gly  Ala Pro Thr Ile Thr Lys Asp Gly Val Ser Val Ala Arg Glu Ile
      50              55              60
Glu  Leu Glu Asp Lys Phe Glu Asn Met Gly Ala Gln Met Val Lys Glu
   65              70              75              80
Val  Ala Ser Lys Ala Asn Asp Ala Ala Gly Asp Gly Thr Thr Thr Ala
      85              90              95
Thr  Val Leu Ala Gln Ala Ile Ile Thr Glu Gly Leu Lys Ala Val Ala
      100              105              110
Ala  Gly Met Asn Pro Met Asp Leu Lys Arg Gly Ile Asp Lys Ala Val
      115              120              125
Ala  Ser Ala Val Glu Glu Leu Lys Ala Leu Ser Val Pro Cys Ser Asp
      130              135              140
Ser  Lys Ala Ile Ala Gln Val Gly Thr Ile Ser Ala Asn Ser Asp Glu
   145              150              155              160

```


Thr Val Gly Lys Leu Ile Ala Glu Ala Met Asp Lys Val Gly Lys Glu
 165 170 175
 Gly Val Ile Thr Val Glu Asp Gly Thr Gly Leu Glu Asp Glu Leu Asp
 180 185 190
 Val Val Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro Tyr Phe
 195 200 205
 Ile Asn Lys Pro Glu Thr Gly Ala Val Glu Leu Glu Ser Pro Phe Ile
 210 215 220
 Leu Leu Ala Asp Lys Lys Ile Ser Asn Ile Arg Glu Met Leu Pro Val
 225 230 235 240
 Leu Glu Ala Val Ala Lys Ala Gly Lys Pro Leu Val Ile Ile Ala Glu
 245 250 255
 Asp Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr Met Arg
 260 265 270
 Gly Ile Val Lys Val Ala Ala Val Lys Ala Pro Gly Phe Gly Asp Arg
 275 280 285
 Arg Lys Ala Met Leu Gln Asp Ile Ala Thr Leu Thr Gly Gly Thr Val
 290 295 300
 Ile Ser Glu Glu Ile Gly Met Glu Leu Glu Lys Ala Thr Leu Glu Asp
 305 310 315 320
 Leu Gly Gln Ala Lys Arg Val Val Ile Asn Lys Asp Thr Thr Thr Ile
 325 330 335
 Ile Asp Gly Val Gly Glu Glu Ala Ala Ile Gln Gly Arg Val Gly Gln
 340 345 350
 Ile Arg Lys Gln Ile Glu Glu Ala Thr Ser Asp Tyr Asp Arg Glu Lys
 355 360 365
 Leu Gln Glu Arg Val Ala Lys Leu Ala Gly Gly Val Xaa Val Ile Lys
 370 375 380
 Val Gly Ala Ala Thr Glu Val Glu Met Lys Glu Lys Lys Ala Arg Val
 385 390 395 400
 Asp Asp Ala Leu His Ala Thr Arg Ala Val Glu Glu Gly Val Val
 405 410 415
 Ala Gly Gly Gly Val Ala Leu Val Arg Val Ala Ala Lys Leu Ala Gly
 420 425 430
 Leu Thr Ala Gln Asn Glu Asp Gln Asn Val Gly Ile Lys Val Ala Leu
 435 440 445
 Arg Ala Met Glu Ala Pro Leu Arg Gln Ile Val Ser Asn Ala Gly Glu
 450 455 460
 Glu Pro Ser Val Val Ala Asn Lys Val Lys Ala Gly Glu Gly Asn Tyr
 465 470 475 480
 Gly Tyr Asn Ala Ala Thr Glu Glu Tyr Gly Asn Met Ile Asp Phe Gly
 485 490 495
 Ile Leu Asp Pro Thr Lys Val Thr Arg Ser Ala Leu Gln Tyr Ala Ala
 500 505 510
 Ser Val Ala Gly Leu Met Ile Thr Thr Glu Cys Met Val Thr Asp Leu
 515 520 525
 Pro Lys Gly Asp Ala Pro Asp Leu Gly Ala Ala Gly Gly Met Gly Gly
 530 535 540
 Met Gly Gly Met Gly Gly Met Met
 545 550

<210> 7181

<211> 111

<212> PRT

<213> Enterobacter cloacae

<400> 7181

Val Lys Glu Pro Asp Met Ser Trp Ile Val Leu Val Ile Ala Gly Leu
 1 5 10 15
 Leu Glu Val Val Trp Ala Ile Gly Leu Lys Tyr Thr His Gly Phe Thr
 20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Thr | Pro | Ser | Val | Ile | Thr | Ile | Ala | Ala | Met | Ile | Val | Ser | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Met | Leu | Ser | Trp | Ala | Met | Arg | Ser | Leu | Pro | Val | Gly | Thr | Ala | Tyr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Val | Trp | Thr | Gly | Ile | Gly | Ala | Val | Gly | Ala | Ala | Ile | Thr | Gly | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Leu | Leu | Gly | Glu | Ser | Ala | Ser | Leu | Ala | Arg | Ile | Ala | Ser | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ile | Val | Ala | Gly | Ile | Ile | Gly | Leu | Lys | Leu | Ser | Thr | His | | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 7182

<211> 416

<212> PRT

<213> Enterobacter cloacae

<400> 7182

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Gly | Leu | Arg | Gln | Glu | Leu | Gly | Leu | Ala | Gln | Gly | Ile | Gly | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | Thr | Ser | Leu | Leu | Gly | Thr | Gly | Val | Phe | Ala | Val | Pro | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Leu | Val | Ala | Gly | Asn | Asn | Ser | Leu | Trp | Ala | Trp | Pro | Val | Leu |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Ile | Val | Leu | Val | Phe | Pro | Val | Ala | Ile | Val | Phe | Ala | Ile | Leu | Gly | Arg |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| His | Phe | Pro | Ser | Ala | Gly | Gly | Val | Thr | His | Phe | Val | Gly | Met | Ala | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Pro | Arg | Met | Glu | Arg | Val | Thr | Gly | Trp | Leu | Phe | Leu | Ser | Val | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Val | Gly | Leu | Pro | Ala | Ala | Leu | His | Ile | Ala | Thr | Gly | Phe | Gly | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | Phe | Gly | Trp | His | Asp | Glu | Gln | Leu | Leu | Leu | Ala | Glu | Ile | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Ala | Ile | Val | Trp | Trp | Val | Gly | Ser | Arg | Gly | Ala | Ser | Ser | Ser |
| | | 130 | | | | 135 | | | | | | 140 | | | |
| Ala | Asn | Leu | Gln | Thr | Leu | Val | Ala | Val | Leu | Ile | Val | Ala | Leu | Ile | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ile | Trp | Phe | Ala | Gly | Asp | Ile | Thr | Val | Ala | Asp | Ile | Pro | Phe | Pro |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Ile | Asn | Asp | Ile | Asp | His | Ala | Gln | Leu | Phe | Ala | Ala | Leu | Ser | Val |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Met | Phe | Trp | Cys | Phe | Val | Gly | Leu | Glu | Ala | Phe | Ala | His | Leu | Ala | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Phe | Lys | Gln | Pro | Glu | Arg | Asp | Phe | Pro | Arg | Ala | Leu | Met | Ile | Gly |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Leu | Leu | Leu | Ala | Gly | Thr | Val | Tyr | Trp | Ala | Cys | Thr | Val | Leu | Val | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Phe | Asn | Ala | Phe | Ser | Glu | Glu | Lys | Ala | Ala | Ala | Ala | Ser | Leu | Pro |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Ile | Val | Val | Gln | Leu | Phe | Gly | Val | Lys | Ala | Leu | Trp | Val | Ala | Cys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Ile | Gly | Tyr | Leu | Ala | Cys | Phe | Ala | Ser | Leu | Asn | Ile | Tyr | Ile | Gln |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asn | Phe | Ala | Arg | Leu | Val | Trp | Ser | Gln | Ala | Leu | Tyr | Lys | Pro | Asp | Ser |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Pro | Leu | Ser | Arg | Leu | Ser | Lys | Arg | Gln | Leu | Pro | Val | Asn | Ala | Leu | Asn |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Val | Leu | Gly | Cys | Cys | Val | Val | Asn | Ser | Leu | Ala | Ile | Tyr | Leu | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Asp | Ile | Asn | Leu | Asp | Ala | Leu | Ile | Val | Tyr | Ala | Asn | Gly | Ile | Phe | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ile | Tyr | Leu | Leu | Cys | Met | Leu | Ala | Gly | Cys | Arg | Leu | Leu | Lys | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Arg | Phe | Lys | Ala | Leu | Ala | Ala | Val | Gly | Cys | Val | Leu | Cys | Leu | Met | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Ala | Met | Val | Gly | Trp | Lys | Ser | Val | Tyr | Ala | Ile | Val | Met | Leu | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Leu | Trp | Val | Phe | Leu | Pro | Lys | Arg | Gln | Ala | Pro | Gln | Ala | Arg | |
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<210> 7183

<211> 506

<212> PRT

<213> Enterobacter cloacae

<400> 7183

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Val | Ile | Lys | Tyr | Ser | Lys | Pro | His | Ile | Tyr | Cys | Val | Phe | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ile | His | Arg | Gln | Leu | Glu | Lys | Lys | Val | His | Met | Leu | Asn | Asn | Ile |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Arg | Ile | Glu | Glu | Asp | Leu | Leu | Gly | Thr | Arg | Glu | Val | Pro | Ala | Asp | Ala |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Tyr | Tyr | Gly | Val | His | Thr | Leu | Arg | Ala | Ile | Glu | Asn | Phe | Tyr | Ile | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Ser | Lys | Ile | Ser | Asp | Ile | Pro | Glu | Phe | Val | Arg | Gly | Met | Val | Met |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Val | Lys | Lys | Ala | Ala | Ala | Leu | Ala | Asn | Lys | Glu | Leu | Gln | Thr | Ile | Pro |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Lys | Ser | Ala | Ala | Asn | Ala | Ile | Ile | Ala | Ala | Cys | Asp | Glu | Val | Leu | Asn |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Asn | Gly | Lys | Cys | Met | Asp | Gln | Phe | Pro | Val | Asp | Val | Tyr | Gln | Gly | Gly |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Ala | Gly | Thr | Ser | Val | Asn | Met | Asn | Thr | Asn | Glu | Val | Leu | Ala | Asn | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Leu | Glu | Leu | Met | Gly | His | Gln | Lys | Gly | Glu | Tyr | Gln | Tyr | Leu | Asn |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Pro | Asn | Asp | His | Val | Asn | Lys | Cys | Gln | Ser | Thr | Asn | Asp | Ala | Tyr | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Thr | Gly | Phe | Arg | Ile | Ala | Val | Tyr | Ala | Ser | Val | Val | Lys | Leu | Val | Asp |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ala | Ile | Asn | Gln | Leu | Gly | Asp | Gly | Phe | Gln | Arg | Lys | Ala | Val | Glu | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | Asp | Ile | Leu | Lys | Met | Gly | Arg | Thr | Gln | Leu | Gln | Asp | Ala | Val | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Met | Thr | Leu | Gly | Gln | Glu | Phe | His | Ala | Phe | Asn | Val | Leu | Leu | Asn | Glu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Glu | Thr | Lys | Asn | Leu | Leu | Arg | Thr | Ser | Glu | Leu | Leu | Leu | Glu | Val | Asn |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Gly | Ala | Thr | Ala | Ile | Gly | Thr | Arg | Leu | Asn | Thr | Pro | Asp | Gly | Tyr |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Gln | Gln | Leu | Ala | Val | Gln | Lys | Leu | Ala | Glu | Val | Ser | Asn | Leu | Pro | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Pro | Ala | Glu | Asp | Leu | Ile | Glu | Ala | Thr | Ser | Asp | Cys | Gly | Ala | Tyr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Met | Val | His | Ser | Ala | Leu | Lys | Arg | Leu | Ala | Val | Lys | Leu | Ser | Lys |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Ile | Cys | Asn | Asp | Leu | Arg | Leu | Leu | Ser | Ser | Gly | Pro | Arg | Ala | Gly | Leu |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asn | Glu | Ile | Asn | Leu | Pro | Glu | Leu | Gln | Ala | Gly | Ser | Ser | Ile | Met | Pro |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Ala | Lys | Val | Asn | Pro | Val | Val | Pro | Glu | Val | Val | Asn | Gln | Val | Cys | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |

Lys Val Ile Gly Asn Asp Thr Thr Val Thr Met Ala Ser Glu Ala Gly
 370 375 380
 Gln Leu Gln Leu Asn Val Met Glu Pro Val Ile Gly Gln Ala Met Phe
 385 390 395 400
 Glu Ser Ile His Ile Leu Thr Asn Ala Cys Tyr Asn Leu Leu Glu Lys
 405 410 415
 Cys Ile Asn Gly Ile Thr Ala Asn Lys Glu Val Cys Glu Gly Tyr Val
 420 425 430
 Tyr Asn Ser Ile Gly Ile Val Thr Tyr Leu Asn Pro Phe Ile Gly His
 435 440 445
 His Asn Gly Asp Ile Val Gly Lys Ile Cys Ala Glu Thr Gly Lys Ser
 450 455 460
 Val Arg Glu Val Val Leu Glu Arg Gly Leu Leu Thr Glu Ala Glu Leu
 465 470 475 480
 Asp Asp Ile Phe Ser Ala Gln Asn Leu Met His Pro Ala Tyr Lys Ala
 485 490 495
 Lys Arg Tyr Thr Asp Glu Ser Glu Gln
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<210> 7184

<211> 574

<212> PRT

<213> Enterobacter cloacae

<400> 7184

Arg Leu Ser Leu Met Ala Gln Arg Phe Ile Thr Leu Ile Leu Leu Leu
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 Asn Phe Ile Pro Ala Asp Gln Ala Phe Val Phe Asp Phe Gln Gln Asn
 35 40 45
 Gln His Asp Leu Ser Leu Thr Trp Gln Val Lys Glu Gly Tyr Tyr Leu
 50 55 60
 Tyr Arg Lys Gln Val Ser Ile Thr Pro Thr Lys Ala Asn Val Gly Ala
 65 70 75 80
 Leu Gln Met Pro Ala Gly Val Trp His Glu Asp Glu Phe Tyr Gly Lys
 85 90 95
 Ser Glu Ile Tyr Arg Gln Arg Leu Ser Val Pro Val Thr Val Asn His
 100 105 110
 Ala Asp Lys Gly Ala Thr Leu Thr Val Thr Tyr Gln Gly Cys Ala Asp
 115 120 125
 Ala Gly Phe Cys Tyr Pro Pro Glu Thr Lys Val Val Pro Leu Ser Glu
 130 135 140
 Val Lys Gly Ala Ala Ser Pro Leu Pro Ser Gly Glu Arg Ala Arg Met
 145 150 155 160
 Lys Gly Glu Gly Ala Gly Glu Ala Thr Ser Asp Leu Pro Phe Ser Ala
 165 170 175
 Leu Trp Ala Leu Leu Ile Gly Ile Gly Ile Ala Phe Thr Pro Cys Val
 180 185 190
 Leu Pro Met Tyr Pro Leu Ile Ser Gly Ile Val Leu Gly Gly Lys Gln
 195 200 205
 Arg Leu Ser Thr Ala Arg Ala Leu Leu Leu Ala Phe Ile Tyr Val Gln
 210 215 220
 Gly Met Ala Leu Thr Tyr Thr Ala Leu Gly Leu Val Val Ala Ala Ala
 225 230 235 240
 Gly Leu Gln Phe Gln Ala Ala Leu Gln His Pro Tyr Val Leu Ile Gly
 245 250 255
 Leu Ser Ala Val Phe Ile Leu Leu Ala Leu Ser Met Phe Gly Leu Phe
 260 265 270
 Thr Leu Gln Leu Pro Ser Ser Leu Gln Thr Arg Leu Thr Leu Met Ser
 275 280 285

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Gln | Gln | Gly | Gly | Ser | Ala | Gly | Gly | Val | Phe | Ala | Met | Gly | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Ala | Gly | Leu | Ile | Cys | Ser | Pro | Cys | Thr | Thr | Ala | Pro | Leu | Ser | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Leu | Leu | Tyr | Ile | Ala | Gln | Ser | Gly | Asn | Leu | Trp | Leu | Gly | Gly | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Thr | Leu | Tyr | Leu | Tyr | Ala | Leu | Gly | Met | Gly | Leu | Pro | Leu | Ile | Leu | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Val | Phe | Gly | Asn | Arg | Leu | Leu | Pro | Lys | Ser | Gly | Pro | Trp | Met | Glu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Val | Lys | Thr | Ala | Phe | Gly | Phe | Val | Ile | Leu | Ala | Leu | Pro | Val | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Leu | Glu | Arg | Ile | Ile | Gly | Asp | Val | Trp | Gly | Thr | Arg | Leu | Trp | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Met | Leu | Gly | Val | Ala | Phe | Phe | Ser | Trp | Ala | Phe | Ile | Val | Ser | Leu | Gly |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ala | Lys | Lys | Pro | Trp | Met | Arg | Leu | Leu | Gln | Ile | Leu | Leu | Leu | Ala | Ala |
| | | | 420 | | | | | | 425 | | | | 430 | | |
| Ala | Leu | Val | Ser | Val | Arg | Pro | Leu | Gln | Asp | Trp | Ala | Phe | Gly | Thr | Pro |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Gly | Gln | Thr | Gln | Ala | His | Leu | Asn | Phe | Ile | Gln | Ile | Lys | Asn | Val |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Asp | Asp | Leu | Asn | His | Ala | Leu | Ala | Gln | Ala | Lys | Gly | Lys | Pro | Val | Met |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Leu | Asp | Leu | Tyr | Ala | Asp | Trp | Cys | Val | Ala | Cys | Lys | Glu | Phe | Glu | Lys |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Tyr | Thr | Phe | Ser | Asp | Pro | Gln | Val | Gln | His | Ala | Leu | Ser | Asp | Thr | Val |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Leu | Leu | Gln | Ala | Asn | Val | Thr | Ala | Asn | Ser | Thr | Gln | Asp | Lys | Ala | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Leu | Lys | Gln | Leu | Lys | Val | Leu | Gly | Leu | Pro | Thr | Ile | Leu | Phe | Phe | Asn |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Glu | Gln | Gly | Glu | Glu | Gln | Pro | Thr | Gln | Arg | Val | Thr | Gly | Phe | Met | Asp |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ala | Thr | Ala | Phe | Asn | Ala | His | Leu | Arg | Asn | Arg | Gln | Pro | | | |
| | | | | 565 | | | | | 570 | | | | | | |

<210> 7185

<211> 347

<212> PRT

<213> Enterobacter cloacae

<400> 7185

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | His | Lys | Met | Ala | His | Ile | Val | Thr | Leu | Asn | Thr | Pro | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Asp | Trp | Leu | Ser | Gln | Leu | Ala | Asp | Val | Ile | Thr | Ser | Pro | Asp | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Arg | Leu | Leu | Asp | Leu | Glu | Gln | His | Glu | Ala | Leu | Arg | Ala | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Glu | Ala | Lys | Arg | Leu | Phe | Ala | Leu | Arg | Val | Pro | Arg | Ala | Phe | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Arg | Met | Glu | Lys | Gly | Asn | Pro | Asp | Asp | Pro | Leu | Leu | Lys | Gln | Thr |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Leu | Thr | Ser | Gln | Asp | Glu | Phe | Ile | Thr | Ala | Pro | Gly | Tyr | Ser | Thr | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Pro | Leu | Gln | Glu | Gln | Asn | Ser | Val | Val | Pro | Gly | Leu | Leu | His | Lys | Tyr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Arg | Asn | Arg | Ala | Leu | Leu | Leu | Val | Lys | Gly | Gly | Cys | Ala | Val | Asn | Cys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Tyr | Cys | Phe | Arg | Arg | His | Phe | Pro | Tyr | Ala | Glu | Asn | Gln | Gly | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |

Lys Arg Asn Trp Gln Val Ala Leu Asp Tyr Ile Thr Ala His Pro Glu
 145 150 155 160
 Leu Asp Glu Ile Ile Phe Ser Gly Gly Asp Pro Leu Met Ala Lys Asp
 165 170 175
 His Glu Leu Asp Trp Leu Leu Thr Gln Leu Glu Thr Ile Pro His Ile
 180 185 190
 Lys Arg Leu Arg Ile His Ser Arg Leu Pro Ile Val Ile Pro Ala Arg
 195 200 205
 Ile Thr Asp Ala Leu Val Thr Arg Leu Glu Gln Ser Arg Leu Gln Val
 210 215 220
 Leu Leu Val Asn His Ile Asn His Ala Asn Glu Ile Asp Ala Asp Phe
 225 230 235 240
 Arg Glu Ala Met Ala Arg Met Arg Lys Ala Gly Val Thr Leu Leu Asn
 245 250 255
 Gln Ser Val Leu Leu Arg Gly Val Asn Asp Ser Ala Arg Val Leu Ala
 260 265 270
 Asp Leu Ser Asn Ala Leu Phe Asp Ala Gly Val Met Pro Tyr Tyr Leu
 275 280 285
 His Val Leu Asp Arg Val Gln Gly Ala Ala His Phe Met Val Thr Asp
 290 295 300
 Glu Glu Ala Arg Lys Ile Met Arg Glu Leu Leu Thr Leu Val Ser Gly
 305 310 315 320
 Tyr Met Val Pro Lys Leu Ala Arg Glu Ile Gly Gly Glu Pro Ser Lys
 325 330 335
 Thr Pro Leu Asp Leu Gln Leu Arg Gln Gln
 340 345

<210> 7186

<211> 209

<212> PRT

<213> Enterobacter cloacae

<400> 7186

Arg His Tyr Tyr Gln Leu Phe Phe Phe Arg Arg Cys Thr Leu Tyr Leu
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 Tyr Tyr Arg Pro Gly Asn His Ala Ala Cys Arg His Ser Gly Val Gln
 20 25 30
 Ile Cys Trp Arg Glu Leu Ser Ala Thr Val Asp Arg Pro His Gly Ser
 35 40 45
 Ser Leu Arg Ser Gly Gly Lys Met Ile Ala Gln Ser Arg Lys Asn Ile
 50 55 60
 Met Asp Leu Phe Ile Asp Gly Ala Arg Arg Gly Phe Thr Ile Ala Thr
 65 70 75 80
 Thr Ser Leu Leu Pro Asn Val Val Met Ala Phe Val Ile Ile Gln Ala
 85 90 95
 Leu Lys Val Thr Gly Leu Leu Asp Ile Val Gly Arg Val Cys Glu Pro
 100 105 110
 Ile Met Ala Leu Trp Gly Leu Pro Gly Ala Ala Ala Thr Val Leu Leu
 115 120 125
 Ala Ser Val Met Ser Met Gly Gly Gly Val Gly Val Cys Ala Ser Leu
 130 135 140
 Val Ala Ala Gly Thr Leu Asn Gly His Asp Ala Thr Ile Leu Leu Pro
 145 150 155 160
 Ala Ile Tyr Leu Met Gly Asn Pro Val Gln Asn Thr Gly Arg Cys Leu
 165 170 175
 Gly Thr Ala Gly Val Asn Pro Lys Tyr Tyr Pro His Ile Ile Ala Val
 180 185 190
 Cys Val Ile Asn Ala Leu Leu Ser Met Trp Val Met Gln Leu Leu Phe
 195 200 205

<210> 7187
 <211> 558
 <212> PRT
 <213> Enterobacter cloacae

<400> 7187

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Arg | Val | Ala | Phe | Arg | Gln | Val | Gly | His | His | Ala | Leu | Gly | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | His | Gln | Ala | Ser | Tyr | Arg | Cys | Arg | Val | Leu | Gln | Ser | Arg | Thr | Gly |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| His | Phe | Ser | Trp | Ile | Gln | Asp | Thr | Glu | Val | Asp | His | Val | Ala | Val | Phe |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Phe | Ser | Cys | Arg | Val | Val | Thr | Val | Val | Thr | Phe | Thr | Arg | Phe | His | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Arg | Asn | His | Arg | Arg | Leu | Phe | Thr | Gly | Val | Gly | His | Asp | Leu | Thr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gln | Arg | Ser | Phe | His | Cys | Ala | Gln | Arg | Asn | Phe | Asp | Thr | His | Val | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Phe | Val | Leu | Ser | Ser | Gln | Ala | Ser | Gln | Phe | Ser | Gly | Tyr | Thr | His |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gln | Arg | Asp | Thr | Thr | Thr | Ser | Asn | His | Ala | Phe | Phe | Tyr | Arg | Ser | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Arg | Val | Gln | Gly | Val | Val | Asn | Ala | Cys | Phe | Leu | Leu | Phe | His | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Phe | Gly | Ser | Arg | Thr | Asp | Phe | Asp | Tyr | Arg | Tyr | Ala | Thr | Cys | Gln |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Phe | Arg | Tyr | Ala | Leu | Leu | Glu | Phe | Phe | Thr | Val | Val | Ile | Gly | Ser | Cys |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Phe | Phe | Asp | Leu | Leu | Thr | Asp | Leu | Thr | Asn | Thr | Ala | Leu | Asn | Ser | Gly |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Phe | Phe | Thr | His | Thr | Val | Asp | Asp | Gly | Gly | Gly | Val | Phe | Val | Asp | His |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Asn | Ala | Phe | Arg | Leu | Ala | Gln | Val | Phe | Gln | Ser | Arg | Phe | Phe | Gln | Leu |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| His | Thr | Asp | Leu | Phe | Gly | Asp | His | Gly | Thr | Ala | Gly | Gln | Gly | Ser | Asp |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Ile | Leu | Glu | His | Arg | Leu | Thr | Thr | Ile | Ala | Glu | Thr | Arg | Cys | Phe | Asn |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Arg | Cys | His | Phe | His | Asp | Ala | Thr | His | Gly | Val | Asn | His | Gln | Gly | Arg |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Gln | Arg | Phe | Ala | Phe | Asn | Val | Phe | Ser | Asn | Asp | Tyr | Gln | Arg | Leu | Ala |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Cys | Phe | Arg | Asp | Ser | Phe | Gln | His | Trp | Gln | His | Phe | Ala | Asp | Val | Gly |
| | 290 | | | | 295 | | | | | | 300 | | | | |
| Asp | Phe | Leu | Val | Ser | Gln | Gln | Asp | Glu | Arg | Ala | Phe | Gln | Leu | Asn | Ser |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Ala | Ser | Phe | Trp | Leu | Val | Asp | Glu | Val | Trp | Gly | Gln | Val | Thr | Ala | Val |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Glu | Leu | His | Thr | Phe | Asn | His | Val | Gln | Phe | Val | Phe | Gln | Thr | Ser | Thr |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Val | Phe | Asn | Gly | Asp | His | Ala | Phe | Phe | Thr | Asp | Phe | Ile | His | Arg | Phe |
| | | 355 | | | | 360 | | | | | | 365 | | | |
| Ser | Asp | Gln | Phe | Thr | Tyr | Gly | Phe | Val | Gly | Val | Ser | Gly | Asp | Ser | Thr |
| | 370 | | | | 375 | | | | | | 380 | | | | |
| Asn | Leu | Ser | Asn | Gly | Phe | Arg | Val | Arg | Ala | Arg | Tyr | Gly | Gln | Arg | Phe |
| 385 | | | | 390 | | | | | 395 | | | | | 400 | |
| Gln | Phe | Phe | Asn | Ser | Gly | Ser | Asp | Gly | Phe | Val | Asp | Thr | Thr | Phe | Gln |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Ile | His | Trp | Val | His | Ala | Arg | Ser | Asn | Gly | Phe | Gln | Ala | Phe | Gly | Asp |
| | | | 420 | | | | 425 | | | | | | 430 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Arg | Leu | Arg | Gln | Tyr | Gly | Arg | Gly | Gly | Gly | Thr | Val | Thr | Gly | Ser |
| | | 435 | | | | | | 440 | | | | | 445 | | |
| Val | Val | Arg | Phe | Arg | Gly | Asn | Phe | Phe | His | His | Leu | Cys | Ala | His | Val |
| | | 450 | | | | 455 | | | | | | 460 | | | |
| Phe | Glu | Leu | Val | Phe | Gln | Leu | Asp | Phe | Thr | Cys | Asn | Arg | Asn | Thr | Ile |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Phe | Gly | Asp | Gly | Trp | Arg | Ala | Glu | Gly | Phe | Val | Gln | His | Tyr | Val | Thr |
| | | | 485 | | | | | | 490 | | | | | | 495 |
| Ala | Phe | Arg | Ala | Glu | Ser | Asp | Phe | His | Cys | Val | Cys | Gln | Tyr | Val | Tyr |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ala | Ala | Glu | His | Phe | Tyr | Thr | Ser | Val | Val | Thr | Glu | Phe | Tyr | Val | Phe |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ser | Cys | His | Val | Leu | Ile | Ser | Ser | Asn | Ser | Tyr | Ser | Phe | Arg | Ala | Leu |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Ile | Thr | Leu | Gln | Gln | Leu | Pro | Glu | Cys | Arg | Ser | Arg | Thr | | | |
| 545 | | | | | 550 | | | | | 555 | | | | | |

<210> 7188

<211> 112

<212> PRT

<213> Enterobacter cloacae

<400> 7188

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| Gly | Gly | Arg | Leu | Val | Asn | Thr | Pro | Asp | Ala | Val | Val | Val | Leu | Cys | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Pro | Asp | Glu | Ala | Ser | Ala | Gln | Asp | Leu | Ala | Ala | Lys | Val | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Lys | Leu | Ala | Ala | Cys | Val | Thr | Leu | Leu | Pro | Gly | Ala | Thr | Ser | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Tyr | Trp | Glu | Gly | Lys | Leu | Glu | Gln | Glu | Tyr | Glu | Val | Gln | Met | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Lys | Thr | Asn | Leu | Thr | Asn | Gln | Gln | Ala | Leu | Leu | Asp | Cys | Leu | Lys |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Ser | His | His | Pro | Tyr | Gln | Thr | Pro | Glu | Leu | Leu | Val | Leu | Pro | Val | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| His | Gly | Asp | Asn | Asp | Tyr | Leu | Ser | Trp | Leu | Asn | Ala | Ser | Leu | Arg | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 7189

<211> 227

<212> PRT

<213> Enterobacter cloacae

<400> 7189

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| Pro | Gly | Leu | Trp | Thr | Arg | Arg | His | Ser | Thr | Arg | Ile | Cys | Ala | Ile | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Arg | Lys | Pro | His | Phe | Arg | Arg | Asp | Lys | Pro | Leu | Gly | Ile | Ala | Glu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Glu | Ile | Thr | Val | Gln | Arg | Glu | Asp | Val | Leu | Gly | Gln | Ala | Leu | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Glu | Ile | Gln | Gly | Ile | Ala | Ser | Thr | Thr | Leu | Glu | Met | Val | Ala | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Ile | Asp | Tyr | Pro | Leu | Asp | Glu | Leu | Arg | Arg | Phe | Trp | Pro | Asp | Lys |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Glu | Ala | Leu | Leu | Tyr | Asp | Ala | Leu | Arg | Tyr | Leu | Ser | Gln | Gln | Val | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ile | Trp | Arg | Arg | Gln | Leu | Met | Leu | Asn | Glu | Glu | Leu | Thr | Thr | Glu | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Leu | Leu | Ala | Arg | Tyr | Thr | Ala | Leu | Thr | Glu | Cys | Val | Thr | Asn | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Tyr | Pro | Gly | Cys | Leu | Phe | Ile | Ala | Ala | Cys | Thr | Tyr | Tyr | Pro | Asp |

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Pro Gly His Pro Ile His Gln Leu Ala Asp Gln Gln Lys Arg Ala Ala | | |
| 145 | 150 | 155 |
| His Glu Phe Thr His Glu Leu Leu Thr Thr Leu Glu Val Asp Asp Pro | | 160 |
| | 165 | 170 |
| Ala Met Val Ala Lys Gln Met Glu Leu Val Leu Glu Gly Cys Leu Ser | | 175 |
| | 180 | 185 |
| Arg Met Leu Val Asn Arg Ser Gln Ala Asp Val Asp Thr Ala His Arg | | 190 |
| | 195 | 200 |
| Leu Ala Glu Asp Ile Leu Arg Phe Ala Gln Cys Arg Met Gly Gly Ala | | 205 |
| | 210 | 215 |
| Leu Thr | | 220 |
| 225 | | |

<210> 7190

<211> 322

<212> PRT

<213> Enterobacter cloacae

<400> 7190

| | | |
|---|-----|-----|
| Glu Arg Glu Glu Glu Lys Lys Lys Arg Gly Lys Arg Gly Lys Lys Lys | | |
| 1 | 5 | 10 |
| Glu Gly Gly Lys Lys Arg Glu Lys Gly Gly Lys Lys Lys Glu Arg Lys | | 15 |
| | 20 | 25 |
| Glu Gly Lys Gly Glu Glu Gly Glu Gly Gly Lys Gly Gly Gly Lys Arg | | 30 |
| | 35 | 40 |
| Gly Arg Arg Gly Gly Lys Lys Gly Glu Lys Lys Lys Glu Lys Glu Gly | | 45 |
| | 50 | 55 |
| Lys Arg Glu Glu Lys Gly Arg Glu Lys Lys Gly Arg Gly Lys Glu Gly | | 60 |
| 65 | 70 | 75 |
| Glu Glu Gly Lys Gly Gly Glu Gly Gly Lys Lys Lys Glu Lys Lys | | 80 |
| | 85 | 90 |
| Gly Arg Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys | | 95 |
| | 100 | 105 |
| Lys Lys Lys Lys Lys Lys Thr Arg Gln Asn Thr Leu His Asn Leu Pro | | 110 |
| | 115 | 120 |
| His Phe Pro Cys Cys His Leu His Leu Thr Lys Asn Ser Lys Glu Thr | | 125 |
| | 130 | 135 |
| Pro Met Arg Ile Leu Pro Val Ile Ala Ala Val Thr Ala Ala Phe Leu | | 140 |
| 145 | 150 | 155 |
| Val Val Ala Cys Ser Ser Pro Thr Pro Pro Pro Gly Val Thr Val Val | | 160 |
| | 165 | 170 |
| Ser Asn Phe Asp Ala Gln Arg Phe Leu Gly Thr Trp Tyr Glu Ile Ala | | 175 |
| | 180 | 185 |
| Arg Met Asp His Gln Phe Glu Arg Gly Leu Glu Lys Val Thr Val Asn | | 190 |
| | 195 | 200 |
| Tyr Ser Ala Met Asp Asp Gly Gly Ile Arg Val Ile Asn Arg Gly Tyr | | 205 |
| | 210 | 215 |
| Asn Pro Asp Arg Gln Met Trp Gln Gln Ser Val Gly Gln Ala Tyr Phe | | 220 |
| 225 | 230 | 235 |
| Thr Gly Ala Ser Asn Arg Ala Ala Met Lys Val Ser Phe Ile Gly Pro | | 240 |
| | 245 | 250 |
| Phe Tyr Gly Gly Tyr Asn Val Ile Ala Leu Asp Arg Glu Tyr Arg His | | 255 |
| | 260 | 265 |
| Ala Leu Val Cys Gly Pro Asp Arg Asn Tyr Leu Trp Ile Leu Ser Arg | | 270 |
| | 275 | 280 |
| Thr Pro Thr Ile Pro Ala Glu Met Lys Gln Gln Met Leu Asp Ile Ala | | 285 |
| | 290 | 295 |
| Thr Arg Gln Gly Phe Asp Val Thr Lys Leu Leu Trp Val Lys Gln Pro | | 300 |
| 305 | 310 | 315 |
| His | | 320 |

<210> 7191
 <211> 213
 <212> PRT
 <213> Enterobacter cloacae

<400> 7191

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Gln | Glu | Ala | Lys | Pro | Leu | Ala | Asp | Cys | Glu | Asn | Phe | Met | Phe | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Leu | Leu | Ile | Asp | Arg | Cys | His | Phe | Thr | Arg | Thr | Gly | Phe | Glu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Val | Asn | His | Ser | Asp | Leu | Phe | Ser | Gly | His | Phe | Val | Val | Thr | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Asn | Asn | Leu | Phe | Leu | Ala | Arg | Glu | His | Ile | Leu | Gln | Trp | Lys | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Leu | Val | Ile | Ala | Asp | Leu | Ser | Gly | Phe | Arg | Gln | Asp | Leu | His | His |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Phe | Gln | Gln | Leu | Ser | Ser | Leu | Leu | Ile | Ala | Ser | Glu | Thr | Leu | Pro | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Met | Leu | Gln | Ser | Gly | Gln | Glu | Gln | Glu | Met | Thr | Asp | Tyr | Leu | Ala |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Gln | Phe | Pro | Ile | Trp | Ser | Ser | Leu | Ser | Lys | Asn | Thr | Asp | Leu | Glu | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Ala | Ala | Val | Ile | Asn | Asp | Ala | Leu | Thr | Ser | Cys | Ala | Ser | Ala | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Pro | Glu | Met | Ala | Ala | Pro | Leu | Leu | Thr | Arg | Gln | Glu | Glu | Arg | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Ser | Leu | Trp | Met | Asp | Gly | Ala | Ser | Asn | Gln | Lys | Ile | Ala | Ser | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Arg | Ile | Asn | Gly | Lys | Thr | Val | Tyr | Thr | Tyr | Lys | Arg | Asn | Ile | Arg |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Met | Lys | Leu | His | Met | Asp | Thr | Arg | Tyr | Ser | Pro | Phe | Leu | Ser | Leu | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Val | Glu | Asn | | | | | | | | | | | | |
| | | | 210 | | | | | | | | | | | | |

<210> 7192
 <211> 237
 <212> PRT
 <213> Enterobacter cloacae

<400> 7192

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Ile | Val | Phe | Ser | Asp | Ala | Thr | Tyr | Asn | Phe | Cys | Thr | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Lys | Gly | Gly | Phe | Met | Ser | Ala | Ser | Ser | Ser | Gly | Glu | Glu | Lys | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Trp | Val | Gly | Tyr | Leu | Ala | Phe | Val | Leu | Thr | Ile | Val | Phe | Phe | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Phe | Phe | Ala | Lys | Ser | Thr | Glu | Trp | Trp | Arg | Val | Leu | Asp | Phe | Thr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Leu | Asn | Gly | Ser | Phe | Gly | Pro | Val | Asn | Gly | Ala | Leu | Thr | Phe | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Glu | Gly | Gly | Thr | Gly | Ala | Lys | Asp | Gly | Phe | Leu | Phe | Ala | Leu | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ala | Pro | Ser | Val | Ile | Leu | Ser | Leu | Gly | Ile | Ile | Ala | Val | Thr | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Leu | Gly | Gly | Leu | Arg | Ala | Ala | Gln | Gln | Leu | Met | Thr | Pro | Ile | Leu |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Arg | Pro | Leu | Leu | Gly | Val | Pro | Gly | Ile | Cys | Ser | Leu | Ala | Leu | Ile | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Gln | Asn | Thr | Asp | Ala | Ala | Ala | Gly | Met | Thr | Lys | Glu | Leu | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Glu | Gly | Ala | Ile | Thr | Asp | His | Glu | Arg | Ala | Ile | Phe | Ala | Thr | Phe |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Gln | Thr | Ser | Gly | Ser | Ala | Ile | Ile | Thr | Asn | Tyr | Phe | Ser | Ser | Gly | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Phe | Thr | Phe | Ile | Thr | Val | Pro | Val | Ile | Thr | Pro | Leu | Ala | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ile | Leu | Val | Phe | Lys | Phe | Val | Gly | Ala | Asn | Phe | Leu | Arg | Leu | Trp | Ile |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | His | Met | Glu | Val | Arg | Cys | Ala | Gln | Glu | Glu | Lys | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | |

<210> 7193

<211> 397

<212> PRT

<213> Enterobacter cloacae

<400> 7193

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Asn | Tyr | Ser | Ser | Glu | Glu | Ile | Lys | Met | Asp | Phe | Ser | Val | Leu | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | His | Leu | Phe | Arg | Asn | Ala | Gln | Leu | Tyr | Ala | Pro | Glu | Asp | Leu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Cys | Asp | Leu | Leu | Ile | Ala | Gly | Gly | Lys | Ile | Val | Ala | Val | Glu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Gly | His | Ala | Thr | Met | Arg | Pro | Asp | Cys | Pro | Glu | Ser | Asp | Leu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ala | Val | Val | Cys | Pro | Gly | Phe | Ile | Asp | Gln | His | Val | His | Leu | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Gly | Gly | Gly | Glu | Ala | Gly | Pro | His | Thr | Arg | Thr | Pro | Glu | Val | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ser | Ala | Leu | Val | Ala | Ala | Gly | Ile | Thr | Ser | Val | Val | Gly | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Thr | Asp | Gly | Val | Thr | Arg | His | Pro | Glu | Ser | Leu | Leu | Ala | Lys | Thr |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Arg | Ala | Leu | Glu | His | Glu | Gly | Ile | Ser | Ala | Trp | Met | Leu | Thr | Gly | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Gly | Leu | Pro | Ser | Pro | Thr | Ile | Thr | Gly | Ser | Ile | Glu | Lys | Asp | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Leu | Ile | Asp | Lys | Ile | Ile | Gly | Val | Lys | Cys | Ala | Ile | Ser | Asp | His |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Arg | Ser | Ser | Ala | Pro | Ala | Asp | Asp | Gln | Leu | Ala | Asn | Met | Ala | Ala | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Arg | Val | Gly | Gly | Leu | Leu | Gly | Ala | Lys | Ala | Gly | Ile | Ser | Val | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| His | Leu | Gly | Asn | Ser | Pro | Lys | Leu | Leu | Glu | Pro | Leu | Leu | Asn | Ile | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Asn | Ala | Asp | Val | Pro | Arg | Thr | Lys | Leu | Leu | Pro | Thr | His | Val | Asn |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Ala | Gln | Ala | Leu | Phe | His | Ala | Ala | Leu | Asp | Tyr | Ala | Arg | Glu | Gly |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Tyr | Ile | Asp | Ile | Thr | Thr | Ser | Ile | Ser | Glu | Pro | Ile | Asp | Ala | Ala |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Thr | Ala | Ile | Ala | Thr | Ala | Arg | Asp | Ala | Gln | Val | Pro | Phe | Asn | Arg | Leu |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Thr | Leu | Cys | Ser | Asp | Gly | Asn | Gly | Ser | Gln | Pro | Asn | Phe | Asp | Ala | Asn |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gly | Asn | Leu | Val | Gly | Ile | Gly | Val | Ala | Gly | Phe | Glu | Ser | Leu | Leu | Asp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Leu | Gln | Gln | Leu | Val | Gly | Arg | Tyr | His | Leu | Pro | Leu | Glu | Glu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |

Leu Leu Pro Phe Thr Arg Asn Val Ala Glu Phe Leu Gly Leu Glu His
 340 345 350
 Lys Gly Arg Ile Ala Pro Gly Cys Asp Ala Asp Phe Leu Val Leu Thr
 355 360 365
 Asp Asp Leu Lys Ile Arg Glu Val Trp Ala Lys Gly Arg Gln Met Val
 370 375 380
 Arg Glu Gly Val Val Cys Val Lys Gly Thr Phe Glu
 385 390 395

<210> 7194

<211> 158

<212> PRT

<213> Enterobacter cloacae

<400> 7194

Ala Met Ala Leu Glu Ser Glu His Gly Thr Asp Ser Ala Phe Ser Ser
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 Ser Thr Ala Glu Ala Thr Ala Leu Ser Ile Pro Arg Phe Arg Ser Ile
 20 25 30
 Gly Phe Met Pro Ala Ala Thr Ala Phe Arg Pro Ser Val Met Ile Ala
 35 40 45
 Cys Ala Ser Thr Val Ala Val Val Val Pro Ser Pro Ala Ala Ser Phe
 50 55 60
 Ala Leu Glu Ala Thr Ser Phe Thr Ile Cys Ala Pro Met Phe Ser Asn
 65 70 75 80
 Leu Ser Ser Ser Ser Ile Ser Arg Ala Thr Glu Thr Pro Ser Leu Val
 85 90 95
 Met Val Gly Ala Pro Lys Asp Leu Ser Ser Thr Thr Leu Arg Pro Phe
 100 105 110
 Gly Pro Arg Val Thr Phe Thr Ala Ser Ala Ser Thr Phe Thr Pro Arg
 115 120 125
 Ser Ile Phe Thr Arg Ala Ser Leu Pro Asn Phe Thr Ser Leu Ala Ala
 130 135 140
 Met Phe Leu Phe Pro Gln Ile Arg Thr Val Phe Val Arg
 145 150 155

<210> 7195

<211> 439

<212> PRT

<213> Enterobacter cloacae

<400> 7195

Ala Arg Gln Val Phe Met Phe Gly Ala Glu Leu Val Ile Val Leu Leu
 1 5 10 15
 Ala Ile Tyr Leu Gly Ala Arg Leu Gly Gly Ile Gly Ile Gly Phe Ala
 20 25 30
 Gly Gly Leu Gly Val Leu Val Leu Thr Leu Ile Phe Gln Ile Lys Pro
 35 40 45
 Gly Ala Ile Pro Phe Asp Val Ile Glu Ile Ile Met Ala Val Ile Ala
 50 55 60
 Ala Ile Ala Ala Met Gln Val Ala Gly Gly Met Asp Tyr Leu Val Ser
 65 70 75 80
 Leu Ala Glu Arg Met Leu Arg Arg His Pro Lys Tyr Ile Thr Phe Leu
 85 90 95
 Ala Pro Leu Val Thr Trp Phe Met Thr Ile Leu Ala Gly Thr Gly His
 100 105 110
 Thr Ala Phe Ser Thr Leu Pro Val Ile Thr Glu Val Ala Lys Glu Gln
 115 120 125
 Gly Ile Arg Pro Ser Arg Pro Leu Ser Ile Ala Val Val Ala Ser Gln
 130 135 140
 Ile Ala Ile Thr Ala Ser Pro Ile Ser Ala Ala Val Val Phe Phe Ala

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Gly | Ile | Leu | Glu | Pro | Met | Gly | Val | Ser | Tyr | Leu | Thr | Leu | Leu | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Cys | Ile | Pro | Val | Thr | Leu | Ile | Ala | Val | Met | Ile | Thr | Ala | Val | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | |
| Asn | Phe | Leu | Gly | Ala | Glu | Leu | Lys | Asp | Asp | Pro | Val | Tyr | Gln | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | Arg |
| Leu | Ala | Lys | Gly | Glu | Val | Ser | Leu | Arg | Gly | Ser | Gln | Val | Phe | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | Leu |
| Lys | Pro | His | Ala | Lys | Arg | Ser | Val | Leu | Leu | Phe | Leu | Ile | Gly | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Ala | Val | Met | Phe | Tyr | Ala | Thr | Ala | Ile | Ser | Asp | Thr | Val | Gly | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Gln | Asn | Pro | Val | Leu | Pro | Arg | Asn | Glu | Ala | Ile | Val | Val | Phe | Met |
| | | 260 | | | | | | 265 | | | | | 270 | Leu |
| Thr | Ile | Ala | Thr | Leu | Ile | Ser | Ile | Thr | Cys | Lys | Ile | Asp | Thr | Ser |
| | 275 | | | | | | 280 | | | | | 285 | | Glu |
| Val | Leu | Asn | Ala | Ser | Thr | Phe | Lys | Ser | Gly | Met | Ser | Ala | Cys | Val |
| | 290 | | | | | 295 | | | | 300 | | | | Cys |
| Val | Leu | Gly | Val | Ala | Trp | Leu | Gly | Asp | Thr | Phe | Val | Lys | Ala | His |
| 305 | | | | | 310 | | | | | 315 | | | | Ile |
| Ser | Asp | Ile | Gln | Thr | Val | Ala | Gly | Asp | Leu | Leu | His | Asn | Tyr | Pro |
| | | | 325 | | | | | 330 | | | | | | Trp |
| Leu | Leu | Ala | Val | Val | Leu | Phe | Phe | Ala | Ala | Thr | Leu | Leu | Tyr | Ser |
| | | 340 | | | | | 345 | | | | | | 350 | Gln |
| Ala | Ala | Thr | Thr | Lys | Ala | Leu | Met | Pro | Ala | Ala | Leu | Met | Leu | Gly |
| | 355 | | | | | | 360 | | | | | 365 | | Val |
| Thr | Pro | Leu | Thr | Ala | Ile | Ala | Ser | Phe | Ala | Ala | Val | Ser | Ala | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | Phe |
| Val | Leu | Pro | Thr | Tyr | Pro | Thr | Leu | Leu | Ala | Ala | Val | Glu | Met | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | Asp |
| Thr | Gly | Ser | Thr | Arg | Ile | Gly | Lys | Tyr | Val | Phe | Asn | His | Ala | Phe |
| | | | | 405 | | | | 410 | | | | | | Leu |
| Ile | Pro | Gly | Val | Val | Ala | Ile | Thr | Leu | Cys | Val | Ile | Leu | Gly | Phe |
| | | | 420 | | | | | 425 | | | | | 430 | Ile |
| Ile | Gly | Gly | Ile | Val | Leu | | | | | | | | | |
| | | 435 | | | | | | | | | | | | |

<210> 7196

<211> 578

<212> PRT

<213> Enterobacter cloacae

<400> 7196

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | His | Val | Ala | Gly | Arg | Lys | Ser | Asp | Gly | Arg | Asp | Arg | Ala | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ser | Gly | Cys | Arg | Pro | Val | Ala | Lys | Met | Pro | Gly | Arg | Val | Arg | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | His | Asn | Arg | Lys | Thr | Val | Arg | Val | Ser | Asp | Pro | Ala | Gly | Arg | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Val | Thr | Phe | Lys | Ile | Lys | Lys | His | Asn | Thr | Thr | Thr | Gln | Gln | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Arg | Gly | Thr | Pro | Met | Ser | Met | Ser | Ser | Ile | Pro | Ser | His | Ser | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Gly | Lys | Leu | Tyr | Gly | Trp | Val | Glu | Arg | Ile | Gly | Asn | Lys | Val | Pro |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| His | Pro | Phe | Leu | Phe | Ile | Tyr | Leu | Ile | Val | Ile | Leu | Met | Val | Ala | |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Thr | Ala | Val | Leu | Ser | Ala | Phe | Glu | Val | Ser | Val | Arg | Ser | Pro | Ala | Asp |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Gly | Ser | Met | Val | Ala | Val | Lys | Asn | Leu | Leu | Ser | Val | Glu | Gly | Leu | His |

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Trp Phe Leu Pro Asn Val Ile Lys Asn Phe Ser Gly Phe Ala Pro Leu | | |
| 145 | 150 | 155 |
| Gly Ala Ile Leu Ala Leu Val Leu Gly Ala Gly Leu Ala Glu Arg Val | | |
| | 165 | 170 |
| Gly Leu Leu Pro Ala Leu Met Val Lys Met Ala Ser His Val Ser Ala | | |
| | 180 | 185 |
| Arg Tyr Ala Ser Tyr Met Val Leu Phe Ile Ala Phe Phe Ser His Ile | | |
| | 195 | 200 |
| Ser Ser Asp Ala Ala Leu Val Ile Met Pro Pro Met Gly Ala Leu Ile | | |
| | 210 | 215 |
| Phe Leu Ala Val Gly Arg His Pro Val Ala Gly Leu Leu Ser Ala Ile | | |
| 225 | 230 | 235 |
| Ala Gly Val Gly Cys Gly Phe Thr Ala Asn Leu Leu Ile Val Thr Thr | | |
| | 245 | 250 |
| Asp Val Leu Leu Ser Gly Ile Ser Thr Glu Ala Ala Ser Thr Ile Asp | | |
| | 260 | 265 |
| Ala Thr Met His Val Ser Val Ile Asp Asn Trp Tyr Phe Met Ala Ser | | |
| | 275 | 280 |
| Ser Val Ile Val Leu Thr Ile Val Gly Gly Leu Ile Thr Asp Lys Ile | | |
| | 290 | 295 |
| Ile Glu Pro Arg Leu Gly Lys Trp Glu Gly Arg Ser Asp Glu Lys Leu | | |
| 305 | 310 | 315 |
| Glu Thr Leu Ser Lys Glu Gln Gln Phe Gly Leu Arg Val Ala Gly Ile | | |
| | 325 | 330 |
| Val Ser Leu Ala Phe Ile Ala Val Val Ala Leu Met Val Val Pro Glu | | |
| | 340 | 345 |
| Asn Gly Val Leu Arg Asp Pro Ile Lys His Thr Val Leu Pro Ser Pro | | |
| | 355 | 360 |
| Phe Ile Gln Gly Ile Val Pro Leu Ile Ile Leu Phe Phe Val Val | | |
| | 370 | 375 |
| Ser Leu Ala Tyr Gly Ile Ala Thr Gly Lys Ile Arg Arg Gln Gly Asp | | |
| 385 | 390 | 395 |
| Leu Pro His Leu Met Ile Glu Pro Met Lys Glu Met Ala Gly Phe Ile | | |
| | 405 | 410 |
| Val Met Val Phe Pro Leu Ala Gln Phe Val Ala Met Phe Asn Trp Ser | | |
| | 420 | 425 |
| Asn Met Gly Lys Phe Met Ala Val Ser Leu Thr Asp Ala Leu Glu Ala | | |
| | 435 | 440 |
| Ala Gly Leu Ser Gly Val Pro Ala Phe Val Gly Leu Ala Leu Leu Ser | | |
| | 450 | 455 |
| Ser Leu Leu Cys Met Phe Ile Ala Ser Gly Ser Ala Ile Trp Ser Ile | | |
| 465 | 470 | 475 |
| Leu Ala Pro Ile Phe Val Pro Met Phe Met Met Leu Gly Phe His Pro | | |
| | 485 | 490 |
| Ala Phe Ala Gln Ile Leu Phe Arg Val Ala Asp Ser Ser Val Ile Pro | | |
| | 500 | 505 |
| Leu Ala Pro Val Ser Pro Phe Val Pro Leu Phe Leu Gly Phe Leu Gln | | |
| | 515 | 520 |
| Arg Tyr Arg Pro Glu Ala Lys Leu Gly Thr Tyr Tyr Ser Leu Val Leu | | |
| | 530 | 535 |
| Pro Tyr Pro Leu Ile Phe Leu Gly Val Trp Leu Val Met Leu Val Ala | | |
| 545 | 550 | 555 |
| Trp Tyr Leu Val Gly Leu Pro Ile Gly Pro Gly Val Tyr Pro Arg Leu | | |
| | 565 | 570 |
| | | 575 |

Asn

<210> 7197
 <211> 175
 <212> PRT

<213> Enterobacter cloacae

<400> 7197

Gly Val Leu Met Leu Arg Leu Leu Glu Asp Lys Ile Ala Thr Pro Leu
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 Gly Pro Leu Trp Val Ile Ala Asp Glu Ala Phe Asn Leu Arg Ala Val
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 Glu Trp Glu Glu His Ser Asp Arg Met Val Glu Leu Leu Asn Ile His
 35 40 45
 Tyr Arg Ala Glu Gly Tyr Glu Arg Val Thr Ala Arg Asn Pro Gly Gly
 50 55 60
 Leu Ser Asp Lys Leu Thr Ala Tyr Phe Glu Gly Asp Leu Ser Ile Ile
 65 70 75 80
 Asn Thr Leu Pro Thr Ala Thr Ala Gly Thr Pro Phe Gln Arg Glu Val
 85 90 95
 Trp Gln Ala Leu Arg Asn Ile Pro Cys Gly Gln Val Met His Tyr Gly
 100 105 110
 Gln Leu Ala Glu Gln Leu Gly Arg Ala Gly Ala Ala Arg Ala Val Gly
 115 120 125
 Ala Ala Asn Gly Ser Asn Pro Val Ser Ile Val Val Pro Cys His Arg
 130 135 140
 Val Ile Gly Arg Asn Gly Thr Leu Thr Gly Tyr Ala Gly Gly Val Gln
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 Arg Lys Glu Trp Leu Leu Arg His Glu Gly Tyr Phe Leu Leu
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<210> 7198

<211> 256

<212> PRT

<213> Enterobacter cloacae

<400> 7198

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 Leu Cys Ile Pro Phe Thr Leu Asn Glu His Glu Leu Asp Gln Leu Asp
 35 40 45
 Asn Ile Ile Glu Arg Lys Lys Pro Ile Gln Lys Gly Gln Thr Leu Phe
 50 55 60
 Lys Ala Gly Asp Glu Leu Lys Ser Leu Tyr Ala Ile Arg Ser Gly Thr
 65 70 75 80
 Ile Lys Ser Tyr Thr Ile Thr Glu Gln Gly Asp Glu Gln Ile Thr Gly
 85 90 95
 Phe His Leu Ala Gly Asp Leu Val Gly Phe Asp Ala Ile Gly Ser Gly
 100 105 110
 His His Pro Ser Phe Ala Gln Ala Leu Glu Thr Ser Met Val Cys Glu
 115 120 125
 Ile Pro Phe Glu Thr Leu Asp Asp Leu Ser Gly Lys Met Pro Asn Leu
 130 135 140
 Arg Gln Gln Met Met Arg Leu Met Ser Gly Glu Ile Lys Gly Asp Gln
 145 150 155 160
 Asp Met Ile Leu Leu Leu Ser Lys Lys Asn Ala Glu Glu Arg Leu Ala
 165 170 175
 Ala Phe Ile Tyr Asn Leu Ser Arg Arg Phe Ala Glu Arg Gly Phe Ser
 180 185 190
 Pro Arg Glu Phe Arg Leu Thr Met Thr Arg Gly Asp Ile Gly Asn Tyr
 195 200 205
 Leu Gly Leu Thr Val Glu Thr Ile Ser Arg Leu Leu Gly Arg Phe Gln
 210 215 220
 Lys Ser Gly Met Leu Ala Val Lys Gly Lys Tyr Ile Thr Ile Glu Asn

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 | | 230 | | 235 | | 240 | | | | | | | | |
| Gly | Glu | Ala | Leu | Ala | Ile | Leu | Ala | Gly | His | Ser | Arg | Asn | Val | Ala |
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<210> 7199
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 <212> PRT
 <213> Enterobacter cloacae

<400> 7199

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| Phe | Pro | Val | Asp | Ala | Arg | Cys | Val | Met | Gln | Glu | Asn | Tyr | Ala | Phe | Ile |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ala | Asp | Ala | Ile | Asp | Thr | Arg | Cys | Gln | Thr | Phe | Thr | Asp | Ile | Ala | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Ile | Trp | Asp | His | Pro | Glu | Thr | Arg | Phe | Glu | Glu | Phe | Trp | Ser | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Arg | Leu | Ala | Ser | Ala | Leu | Glu | Ala | Glu | Gly | Phe | Thr | Leu | Thr | Arg |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Glu | Ala | Gly | Gly | Ile | Pro | Asn | Ala | Phe | Ile | Ala | Ser | Tyr | Gly | Ser | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Lys | Pro | Val | Ile | Ala | Leu | Leu | Gly | Glu | Tyr | Asp | Ala | Leu | Ala | Gly | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Gln | Gln | Ala | His | Cys | Ala | Thr | Ala | Gln | Ser | Ala | Thr | Pro | Gly | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Gly | His | Gly | Cys | Gly | His | Asn | Leu | Leu | Gly | Thr | Ala | Ala | Phe | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Ala | Val | Ala | Val | Lys | Ser | Trp | Leu | Glu | Gln | His | Gly | Gly | Ser | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Thr | Val | Arg | Phe | Tyr | Gly | Cys | Pro | Gly | Glu | Glu | Gly | Gly | Ser | Gly | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Phe | Met | Val | Arg | Glu | Gly | Leu | Phe | Asp | Asp | Val | Asp | Ala | Gly | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Trp | His | Pro | Glu | Ala | Phe | Ala | Gly | Met | Phe | Asn | Val | Ser | Thr | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Asn | Ile | Gln | Ala | Ala | Trp | Arg | Phe | Lys | Gly | Ile | Ala | Ala | His | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Asn | Ser | Pro | His | Leu | Gly | Arg | Ser | Ala | Leu | Asp | Ala | Val | Thr | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Met | Thr | Thr | Gly | Thr | Asn | Phe | Leu | Asn | Glu | His | Ile | Ile | Glu | Lys | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Val | His | Tyr | Ala | Ile | Thr | Asp | Thr | Gly | Gly | Ile | Ser | Pro | Asn | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Gln | Ala | Gln | Ala | Glu | Val | Leu | Tyr | Leu | Ile | Arg | Ala | Pro | Glu | Met |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Asp | Ala | Gln | Gln | Ile | Tyr | Ala | Arg | Ile | Glu | Lys | Ile | Ala | Gln | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Ala | Met | Met | Thr | Glu | Thr | Thr | Val | Glu | Cys | Arg | Phe | Asp | Lys | Ala |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Cys | Ser | Ser | Tyr | Leu | Pro | Asn | Arg | Thr | Leu | Glu | Ala | Ala | Met | Tyr | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Leu | Gln | His | Tyr | Gly | Thr | Pro | Ala | Trp | Thr | Glu | Glu | Glu | Arg | Glu |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Phe | Ala | Arg | Lys | Ile | Arg | Ala | Thr | Leu | Thr | Ala | Asn | Asp | Leu | Gln | Asn |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Leu | Lys | Asn | Ile | Ala | Ala | Thr | Gly | Ala | Glu | Glu | Gly | Lys | Ala | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Arg | Arg | His | Gln | Glu | Thr | Leu | Leu | Val | Asp | Glu | Val | Ala | Pro | Tyr |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Ala | Ile | Thr | Asp | Asn | Val | Leu | Ala | Gly | Ser | Thr | Asp | Val | Gly | Asp | Val |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Ser | Trp | Lys | Met | Pro | Val | Ala | Gln | Cys | Phe | Ser | Pro | Cys | Phe | Thr | Val |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Gly | Thr | Pro | Leu | His | Thr | Trp | Gln | Leu | Val | Ala | Gln | Gly | Arg | Thr | Ser | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Ile | Ala | His | Lys | Gly | Met | Leu | Leu | Ala | Gly | Lys | Val | Met | Gly | Ala | Thr | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Ala | Leu | His | Leu | Leu | Gln | Asp | Ala | Asp | Leu | Leu | Arg | Lys | Cys | Arg | Glu | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Glu | Phe | Glu | Gln | His | Ile | Thr | Glu | Lys | Pro | Tyr | Glu | Cys | Pro | Ile | Pro | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Gln | Gly | Val | Thr | Pro | Ser | Pro | Leu | Lys | | | | | | | | | |
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<210> 7200

<211> 573

<212> PRT

<213> Enterobacter cloacae

<400> 7200

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| Ile | Arg | Tyr | Asp | Asp | Ser | Ile | Asp | Val | Thr | Leu | Pro | Leu | Leu | Leu | Arg | | |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Met | Thr | Ala | Met | Leu | Lys | Asn | Leu | His | Val | Ile | Thr | Gly | Ile | Ile | Phe | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Ala | Leu | Thr | Ile | Phe | Cys | Leu | Leu | Gln | Val | Val | Thr | Gly | Gly | Leu | Phe | | |
| | 35 | | | | | 40 | | | | | | 45 | | | | | |
| Tyr | Ser | Ala | Val | Asn | Asn | Asp | Arg | His | Asn | Phe | Gln | Asn | Ser | Gly | Leu | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Leu | Asn | Ala | Gln | Gln | Glu | Ser | Leu | Ser | Asp | Ser | Val | Asn | Thr | Leu | Val | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Lys | Thr | Arg | Val | Thr | Val | Thr | Arg | Val | Ala | Ile | Arg | Tyr | Leu | Lys | Asn | | |
| | | 85 | | | | | | 90 | | | | | | 95 | | | |
| Gln | Arg | Asp | Pro | Ala | Ser | Leu | Ala | Ala | Ile | Asn | Thr | Leu | Leu | Gly | Thr | | |
| | | 100 | | | | | 105 | | | | | | 110 | | | | |
| Ala | Asn | Gly | Ser | Leu | Ala | Lys | Ala | Glu | Asp | Tyr | Tyr | Lys | Asn | Trp | Gln | | |
| | 115 | | | | | 120 | | | | | | 125 | | | | | |
| Ala | Ile | Pro | Gln | Val | Lys | Gly | Gln | His | Ala | Ala | Leu | Thr | Glu | Glu | Met | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gln | Lys | Ala | Trp | Lys | Gln | Met | His | Glu | Val | Met | Arg | Leu | Ser | Ile | Glu | | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Tyr | Leu | Arg | Ala | Asp | Asn | Tyr | Gln | Ala | Tyr | Gly | Asp | Leu | Asp | Ala | Gln | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | |
| Gln | Ala | Gln | Asp | Glu | Met | Glu | Ala | Val | Tyr | Thr | Arg | Trp | Arg | Ala | Glu | | |
| | 180 | | | | | | 185 | | | | | | 190 | | | | |
| Asn | Asn | Val | Leu | Leu | Lys | Ala | Ala | Ala | Glu | Glu | Asn | Gln | Ser | Ser | Phe | | |
| | 195 | | | | | 200 | | | | | | 205 | | | | | |
| Thr | Gln | Met | Gln | Trp | Thr | Leu | Ala | Ala | Ile | Phe | Leu | Thr | Val | Ile | Ala | | |
| | 210 | | | | 215 | | | | | | 220 | | | | | | |
| Val | Leu | Val | Val | Ile | Trp | Gln | Gly | Leu | Gln | His | Leu | Leu | Leu | Lys | Pro | | |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Leu | Asn | Ala | Ile | Met | Asn | His | Ile | Arg | Thr | Ile | Ala | Ser | Gly | Asp | Leu | | |
| | | | 245 | | | | | | 250 | | | | | 255 | | | |
| Thr | Gln | Asn | Val | Ala | Ile | Ala | Gly | Arg | Asn | Glu | Met | Gly | Gln | Leu | Ala | | |
| | 260 | | | | | 265 | | | | | | | 270 | | | | |
| Ala | Gly | Leu | His | Glu | Met | Gln | Gln | Ser | Leu | Val | Ser | Thr | Val | Ser | Ala | | |
| | 275 | | | | | 280 | | | | | | 285 | | | | | |
| Val | Arg | Gly | Ser | Thr | Asp | Ser | Ile | Tyr | Thr | Gly | Ala | Gly | Glu | Ile | Ala | | |
| | 290 | | | | 295 | | | | | 300 | | | | | | | |
| Ala | Gly | Ser | Asn | Asp | Leu | Ser | Ala | Arg | Thr | Glu | Gln | Gln | Ala | Ala | Ser | | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | | |
| Leu | Glu | Glu | Thr | Ala | Ala | Ser | Met | Glu | Glu | Leu | Thr | Ala | Thr | Val | Lys | | |
| | | | 325 | | | | | | 330 | | | | | 335 | | | |
| Gln | Asn | Ser | Asp | Asn | Ala | Arg | Gln | Ala | Thr | Leu | Leu | Ala | Lys | Asn | Ala | | |


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<211> 449
<212> PRT
<213> Enterobacter cloacae
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| <400> 7201 | | | | | | | | | | | | | | | |
| Ser 1 | Ser | Ser | His | Ile 5 | Leu | Met | Met | Thr | Gly 10 | Lys | Asp | Met | Asn | Ala 15 | Leu |
| Ala | Gln | Tyr | Ile 20 | Gln | Thr | Leu | Ala | Pro 25 | Gln | Leu | Ser | Ala | Trp 30 | Arg | Arg |
| Asp | Phe | His 35 | His | Phe | Ala | Glu | Ser 40 | Gly | Trp | Val | Glu | Phe 45 | Arg | Thr | Ala |
| Ala | Lys 50 | Val | Ala | Glu | Ile 55 | Leu | Ala | Ser | Leu | Gly | Tyr 60 | Glu | Leu | Ala | Met |
| Gly 65 | Arg | Asp | Val | Val 70 | Asp | Ala | Glu | Ser | Arg | Met 75 | Gly | Leu | Pro | Asp | Asp 80 |
| Ala | Thr | Leu | Ser 85 | Arg | Glu | Phe | Ala | Arg | Ala 90 | Arg | Ala | Gln | Gly | Ala 95 | Pro |
| Glu | Lys | Trp | Leu 100 | Ala | Pro | Phe | Glu | Gly 105 | Gly | Phe | Thr | Gly | Ile 110 | Val | Ala |
| Thr | Leu | Asn 115 | Thr | Gly | Arg | Pro | Gly 120 | Pro | Thr | Leu | Ala | Phe 125 | Arg | Val | Asp |
| Met | Asp 130 | Ala | Leu | Asp | Leu | Ser 135 | Glu | Ala | Leu | Asp 140 | Asp | Ser | His | Arg | Pro |
| Phe 145 | Arg | Asp | Gly | Phe 150 | Ala | Ser | Cys | Asn | Pro | Gly 155 | Met | Met | His | Ala | Cys 160 |
| Gly | His | Asp | Gly | His 165 | Thr | Thr | Ile | Gly | Leu 170 | Gly | Leu | Ala | Gln | Val | Leu |
| Lys | Gln | His 180 | Glu | Ala | Gln | Leu | Asn | Gly 185 | Thr | Ile | Lys | Leu | Ile 190 | Phe | Gln |
| Pro | Ala | Glu | Glu | Gly | Thr | Arg | Gly | Ala | Arg | Ala | Met | Val | Ala | Ala | Gly |

| | | |
|---|-----|-----|
| 195 | 200 | 205 |
| Ala Leu Asp Gly Val Asp Tyr Phe Thr Ala Ile His Ile Gly Thr Gly | | |
| 210 | 215 | 220 |
| Val Pro Glu Gly Thr Val Ile Cys Gly Ser Asp Asn Phe Met Ala Thr | | |
| 225 | 230 | 235 |
| Thr Lys Phe Asp Val Arg Phe Thr Gly Val Ala Ala His Ala Gly Gly | | |
| | 245 | 250 |
| Lys Pro Glu Glu Gly Arg Asn Ala Leu Leu Ala Ala Ala Gln Ala Ala | | |
| | 260 | 265 |
| Ile Ala Leu His Gly Ile Ala Pro His Ser Glu Gly Ala Ser Arg Val | | |
| | 275 | 280 |
| Asn Val Gly Val Met Gln Ala Gly Ser Gly Arg Asn Val Val Pro Ala | | |
| | 290 | 295 |
| Asp Ala Leu Leu Lys Val Glu Thr Arg Gly Glu Ser Glu Ala Ile Asn | | |
| 305 | 310 | 315 |
| Gln Tyr Val Phe Glu Arg Ala Gln Ala Val Ile Thr Gly Ala Ala Ala | | |
| | 325 | 330 |
| Leu Tyr Gly Val Thr Thr Gly Ile Asn Leu Met Gly Ala Ala Thr Ser | | |
| | 340 | 345 |
| Ser Val Pro Ser Pro Ala Trp Val Asp Tyr Leu Arg Glu Gln Ala Ser | | |
| | 355 | 360 |
| Gln Val Pro Gly Val Thr His Ala Ile Asn Lys Val Lys Ala Pro Ala | | |
| | 370 | 375 |
| Gly Ser Glu Asp Ala Thr Leu Met Met Ala Arg Val Gln Gln Asn Gly | | |
| 385 | 390 | 395 |
| Gly Met Ala Ser Tyr Met Val Phe Gly Thr Gln Leu Ser Ala Gly His | | |
| | 405 | 410 |
| His Asn Glu Lys Phe Asp Phe Asp Glu Gln Val Met Asn Val Ala Ile | | |
| | 420 | 425 |
| Glu Thr Leu Ala Arg Thr Ala Leu Asn Phe Pro Trp Thr Arg Gly Val | | |
| | 435 | 440 |
| | | 445 |

<210> 7202

<211> 333

<212> PRT

<213> Enterobacter cloacae

<400> 7202

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| Met Ala Lys Tyr Gln Asn Met Leu Val Ala Ile Asp Pro Asn Gln Asp |
| 20 25 30 |
| Asp Gln Pro Ala Leu Arg Arg Ala Val Tyr Leu His Gln Arg Ile Gly |
| 35 40 45 |
| Gly Lys Ile Lys Ala Phe Leu Pro Ile Tyr Asp Phe Ser Tyr Glu Met |
| 50 55 60 |
| Thr Thr Leu Leu Ser Pro Asp Glu Arg Thr Ala Met Arg Gln Gly Val |
| 65 70 75 80 |
| Ile Ser Gln Arg Thr Ala Trp Ile Arg Glu Gln Ala Lys Tyr Tyr Leu |
| 85 90 95 |
| Glu Ala Gly Val Pro Ile Asp Ile Lys Val Val Trp His Asn Arg Pro |
| 100 105 110 |
| Phe Glu Ala Ile Ile Gln Glu Val Val Ala Gly Gly His Asp Leu Leu |
| 115 120 125 |
| Leu Lys Met Ala His Gln His Asp Lys Leu Glu Ser Val Ile Phe Thr |
| 130 135 140 |
| Pro Thr Asp Trp His Leu Leu Arg Lys Cys Pro Cys Pro Val Trp Met |
| 145 150 155 160 |
| Val Lys Asp Gln Pro Trp Pro Glu Gly Gly Lys Ala Val Val Ala Val |

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Ala | Ser | 165 | Glu | Glu | Asp | Tyr | His | 170 | Asn | Ser | Leu | Asn | Glu | 175 | Lys | Leu |
| Val | Lys | Glu | 180 | Thr | Leu | Gln | Leu | Ala | 185 | Asp | Gln | Val | Asn | His | 190 | Thr | Glu | Val |
| His | Leu | Val | 195 | Gly | Ala | Tyr | Pro | Val | 200 | Thr | Pro | Ile | Asn | Ile | Ala | Ile | Glu | |
| Leu | Pro | Glu | 210 | Phe | Asp | Pro | Ser | Val | 215 | Tyr | Asn | Asp | Ala | Ile | Arg | Gly | Gln | |
| His | Leu | Leu | 225 | Ala | Met | Lys | Ala | Leu | 230 | Arg | Gln | Lys | Phe | Ser | Ile | Asp | Glu | |
| Asn | Met | Thr | 245 | His | Val | Glu | Lys | Gly | 250 | Leu | Pro | Glu | Glu | Val | Ile | Pro | Asp | |
| Leu | Ala | Glu | 260 | His | Leu | Gln | Ala | Gly | 265 | Ile | Val | Val | Leu | Gly | Thr | Ile | Gly | |
| Arg | Thr | Gly | 275 | Ile | Ser | Ala | Ala | Phe | 280 | Leu | Gly | Asn | Thr | Ala | Glu | Gln | Val | |
| Ile | Asp | His | 290 | Leu | Arg | Cys | Asp | Leu | 295 | Leu | Val | Ile | Lys | Pro | Asp | Gln | Tyr | |
| Gln | Thr | Pro | 305 | Val | Glu | Leu | Asp | Asp | 310 | Glu | Glu | Asp | Asp | | | | 320 | |
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<210> 7203

<211> 432

<212> PRT

<213> Enterobacter cloacae

<400> 7203

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| Lys | Arg | Asn | His | Leu | Gly | Ile | Ala | Gly | Leu | Ala | Ile | Ala | Leu | Ile | Ala | | | |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | | | | |
| Thr | Ile | Phe | Gly | Pro | Asp | Pro | Gly | Asn | Val | Ala | Trp | Ile | Leu | Val | Ala | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Met | Ile | Ile | Gly | Gly | Ala | Ile | Gly | Ile | Arg | Leu | Ala | Lys | Arg | Val | Glu | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Met | Thr | Glu | Met | Pro | Glu | Leu | Val | Ala | Ile | Leu | His | Ser | Phe | Val | Gly | | | |
| | | | 50 | | | 55 | | | | | 60 | | | | | | | |
| Leu | Ala | Ala | Val | Leu | Val | Gly | Phe | Asn | Ser | Tyr | Leu | Tyr | His | Glu | Pro | | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | | |
| Gly | Leu | Glu | Pro | Ile | Leu | Val | Asn | Ile | His | Leu | Thr | Glu | Val | Phe | Leu | | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | | |
| Gly | Ile | Phe | Ile | Gly | Ala | Val | Thr | Phe | Thr | Gly | Ser | Ile | Val | Ala | Phe | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Gly | Lys | Leu | Arg | Gly | Lys | Ile | Ser | Ser | Lys | Pro | Leu | Met | Leu | Pro | Asn | | | |
| | | | 115 | | | | 120 | | | | | 125 | | | | | | |
| Arg | His | Lys | Leu | Asn | Leu | Ala | Ala | Leu | Val | Val | Ser | Phe | Val | Leu | Leu | | | |
| | | | 130 | | | 135 | | | | | 140 | | | | | | | |
| Val | Val | Phe | Val | Arg | Thr | Glu | Ser | Val | Gly | Leu | Gln | Val | Leu | Ala | Leu | | | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 | | | |
| Leu | Val | Met | Thr | Ile | Ile | Ala | Leu | Ala | Phe | Gly | Trp | His | Leu | Val | Ala | | | |
| | | | | 165 | | | | 170 | | | | | 175 | | | | | |
| Ser | Ile | Gly | Gly | Ala | Asp | Met | Pro | Val | Val | Val | Ser | Met | Leu | Asn | Ser | | | |
| | | | 180 | | | | | 185 | | | | 190 | | | | | | |
| Tyr | Ser | Gly | Trp | Ala | Ala | Ala | Ala | Ala | Gly | Phe | Met | Leu | Ser | Asn | Asp | | | |
| | | | 195 | | | | 200 | | | | | 205 | | | | | | |
| Leu | Leu | Ile | Val | Thr | Gly | Ala | Leu | Val | Gly | Ser | Ser | Gly | Ala | Ile | Leu | | | |
| | | | 210 | | | 215 | | | | | | 220 | | | | | | |
| Ser | Tyr | Ile | Met | Cys | Lys | Ala | Met | Asn | Arg | Ser | Phe | Ile | Ser | Val | Ile | | | |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 | | | |
| Ala | Gly | Gly | Phe | Gly | Ser | Asp | Gly | Ser | Ser | Thr | Gly | Ser | Asp | Glu | Glu | | | |
| | | | | 245 | | | | 250 | | | | | 255 | | | | | |
| Val | Gly | Glu | His | Arg | Glu | Ile | Ser | Ala | Glu | Asp | Thr | Ala | Glu | Met | Leu | | | |

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asn | Ser | 260 | His | Ser | Val | Ile | Ile | 265 | Thr | Pro | Gly | Tyr | Gly | 270 | Met | Ala | Val |
| | | 275 | | | | | | 280 | | | | | | 285 | | | | |
| Ala | Gln | Ala | Gln | Tyr | Pro | Val | Val | Ala | Glu | Ile | Thr | Glu | Lys | Leu | Arg | Ala | | |
| | 290 | | | | | 295 | | | | | | 300 | | | | | | |
| Arg | Gly | Ile | Lys | Val | Arg | Phe | Gly | Ile | His | Pro | Val | Ala | Gly | Arg | Leu | | | |
| 305 | | | | 310 | | | | | 315 | | | | | | 320 | | | |
| Pro | Gly | His | Met | Asn | Val | Leu | Leu | Ala | Glu | Ala | Lys | Val | Pro | Tyr | Asp | | | |
| | | | 325 | | | | | | 330 | | | | | 335 | | | | |
| Ile | Val | Leu | Glu | Met | Asp | Glu | Ile | Asn | Asp | Asp | Phe | Ala | Asp | Thr | Asp | | | |
| | | 340 | | | | | | 345 | | | | | 350 | | | | | |
| Thr | Val | Leu | Val | Ile | Gly | Ala | Asn | Asp | Thr | Val | Asn | Pro | Ala | Ala | Gln | | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | | |
| Asp | Asp | Pro | Arg | Ser | Pro | Ile | Ala | Gly | Met | Pro | Val | Leu | Glu | Val | Trp | | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | | |
| Lys | Ala | Gln | Asn | Val | Ile | Val | Phe | Lys | Arg | Ser | Met | Asn | Thr | Gly | Tyr | | | |
| 385 | | | 390 | | | | | 395 | | | | | | 400 | | | | |
| Ala | Gly | Val | Gln | Asn | Pro | Leu | Phe | Phe | Lys | Asp | Asn | Thr | His | Met | Leu | | | |
| | | | 405 | | | | | 410 | | | | | | 415 | | | | |
| Phe | Gly | Asp | Ala | Lys | Ala | Ser | Val | Asp | Ala | Ile | Leu | Lys | Ala | Leu | | | | |
| | | 420 | | | | | | 425 | | | | | 430 | | | | | |

<210> 7204

<211> 299

<212> PRT

<213> Enterobacter cloacae

<400> 7204

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Ile | Ile | Phe | Met | Arg | Lys | Val | Ser | Met | Ser | Ser | Ile | Asp | Lys |
| 1 | | | 5 | | | | | | 10 | | | | 15 | | |
| Ser | Gly | Thr | Phe | Thr | Leu | Gly | Thr | Arg | Thr | Val | Lys | Arg | Phe | Gly | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ala | Met | Gln | Leu | Ala | Gly | Pro | Gly | Val | Phe | Gly | Pro | Pro | Lys | Asp |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Lys | Asn | Ala | Ala | Leu | Ala | Val | Leu | Arg | Glu | Ala | Val | Ala | Ser | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | His | Ile | Asp | Thr | Ser | Asp | Phe | Tyr | Gly | Pro | His | Val | Thr | Asn | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Ile | Cys | Glu | Ala | Leu | His | Pro | Tyr | Arg | Asp | Asp | Leu | Thr | Ile | Val |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Lys | Ile | Gly | Ala | Arg | Arg | Gly | Glu | Asp | Ala | Ser | Trp | Leu | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ser | Ala | Gln | Glu | Leu | Thr | Gln | Ala | Val | His | Asp | Asn | Leu | Arg | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Lys | Arg | Asp | Val | Leu | Asp | Val | Val | Asn | Leu | Arg | Ile | Met | Phe | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | His | Gly | Pro | Ala | Glu | Gly | Ser | Ile | Ala | Ala | Pro | Leu | Ser | Thr | Leu |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Ala | Glu | Leu | Gln | Gln | Gly | Leu | Val | Arg | His | Ile | Gly | Leu | Ser | Asn | |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Val | Thr | Ala | Ser | Gln | Val | Ala | Glu | Ala | Gln | Lys | Met | Val | Ser | Val | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Cys | Val | Gln | Asn | Met | Tyr | Asn | Val | Val | Asn | Arg | Gly | Asp | Asp | Val | Leu |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Val | Asp | Ser | Leu | Ala | Gln | Gln | Gly | Ile | Ala | Trp | Val | Pro | Phe | Phe | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gly | Gly | Phe | Thr | Pro | Leu | Gln | Ser | Ser | Gly | Leu | Gln | Ala | Val | Ala |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Asp | Ser | Leu | Gly | Ala | Thr | Pro | Met | Gln | Val | Ala | Leu | Ala | Trp | Leu | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gln | Arg | Ser | Pro | Asn | Ile | Leu | Leu | Ile | Pro | Gly | Thr | Ser | Ser | Val | Ala |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 260 | | | | | 265 | | | 270 | | | | |
| His | Leu | Arg | Glu | Asn | Leu | Ala | Ala | Val | Asp | Leu | Val | Leu | Pro | Pro |
| | | 275 | | | | | 280 | | | | | 285 | | |
| Ala | Leu | Glu | Thr | Leu | Asn | Ser | Leu | Val | Gly | | | | | |
| | | 290 | | | | | 295 | | | | | | | |

<210> 7205

<211> 410

<212> PRT

<213> Enterobacter cloacae

<400> 7205

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Cys | Asn | Phe | Ala | His | Pro | Asp | Lys | Pro | Pro | Pro | Gly | Ala | Val |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Phe | Leu | Phe | Leu | Arg | Pro | Ala | Phe | Leu | Leu | Cys | Leu | Tyr | Phe | Thr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Cys | Val | Ile | Arg | Gly | Gly | Val | Met | Arg | Phe | Leu | Ser | Arg | Phe | Asp | Ile |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ile | Glu | Leu | Met | Met | Thr | Pro | Ser | Phe | Trp | Ile | Gly | Val | Ala | Thr | Val |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Val | Phe | Val | Thr | Leu | Leu | Val | Tyr | Trp | Leu | Leu | Thr | Arg | Leu | Ile | Ala |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |
| Phe | Val | Lys | Lys | Gly | Ile | Thr | Thr | Trp | Gly | Asp | Lys | His | Pro | Ser | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Arg | Met | Arg | Phe | Ile | Leu | Thr | Asp | Met | Leu | Asn | Arg | Thr | Ser | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Leu | Leu | Phe | Val | Val | Ala | Leu | Leu | Phe | Ser | Leu | Arg | Phe | Val | Asp |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Leu | Pro | Asp | His | Leu | Phe | Gly | Thr | Val | Ser | His | Ala | Trp | Phe | Leu | Val |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Phe | Ala | Ile | Gln | Val | Ala | Leu | Trp | Met | Asp | Gln | Gly | Val | Val | Ser | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Arg | His | Val | Met | Leu | Ala | Pro | Gly | Ser | His | Lys | Asn | Pro | Val | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Val | Ile | Thr | Gly | Leu | Ile | Leu | Arg | Ala | Ile | Val | Trp | Ser | Val | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Leu | Ser | Ile | Leu | Ala | Asn | Ala | Gly | Val | Asn | Ile | Thr | Ala | Leu | Val |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Ala | Ser | Leu | Gly | Val | Gly | Gly | Ile | Ala | Ile | Ala | Leu | Ala | Val | Gln | Thr |
| | | | 210 | | | 215 | | | | | 220 | | | | |
| Ile | Leu | Ser | Asp | Val | Phe | Ala | Ser | Leu | Ser | Ile | Gly | Phe | Asp | Lys | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Glu | Ile | Gly | Asp | Phe | Val | Val | Phe | Asn | Asp | Val | Ala | Gly | Thr | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | His | Ile | Gly | Leu | Lys | Thr | Thr | Arg | Ile | Arg | Ser | Leu | Ser | Gly | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Ile | Val | Cys | Gly | Asn | Ala | Ile | Leu | Leu | Gln | Gln | Thr | Leu | His | Asn |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Tyr | Lys | Arg | Met | Gln | Thr | Arg | Arg | Ile | Val | Phe | Thr | Phe | Gly | Val | Ala |
| | | | 290 | | | 295 | | | | | 300 | | | | |
| Ser | Asp | Thr | Ala | Pro | Glu | Lys | Leu | Arg | Ser | Val | Gly | Glu | Met | Val | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gln | Ile | Ile | Thr | Asp | Val | Gly | Glu | Thr | Lys | Phe | Asp | Arg | Ala | His | Phe |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Gly | Phe | Asp | Arg | Asp | Arg | Leu | Thr | Phe | Glu | Val | Val | His | Ile | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Thr | Ala | Asp | Tyr | Asn | Lys | Tyr | Met | Asp | Ile | Gln | Gln | Glu | Ile | Asn |
| | | | 355 | | | | 360 | | | | | 365 | | | |
| Ile | Arg | Ile | Leu | Glu | Glu | Leu | Asn | Gln | Gln | Glu | Ile | Lys | Leu | Ala | Leu |
| | | | 370 | | | 375 | | | | | 380 | | | | |
| Pro | Ser | Met | Val | Leu | His | Ala | Pro | Trp | Met | Asn | Ala | Gly | Asp | Glu | Ala |


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<210> 7206
<211> 309
<212> PRT
<213> Enterobacter cloacae
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[illegible]

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<210> 7207
<211> 217
<212> PRT
<213> Enterobacter cloacae
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Ala Ile Ile Cys Thr Arg Ala Arg Met Ile Glu Thr Arg Asn Gly Arg
1 5 10 15
Arg Tyr Ser Thr Ser Leu Arg Cys Ser Arg Arg Ile Ser Met Asn Pro
20 25 30


```

Asp Asp Lys Ser Leu Phe Leu Asp Ala Met Glu Asp Val Gln Pro Leu
    35      40      45
Lys Arg Cys Ala Asp Ile His Trp Gln Gln Ser Arg Asn Thr Arg Ala
    50      55      60
Arg Gln Glu Ile Asp Thr Glu Gln Leu Asp Asn Phe Leu Thr Leu Gly
    65      70      75      80
Phe Leu Glu Leu Leu Pro Leu Asp Glu Pro Leu Met Phe Gln Arg Glu
    85      90      95
Gly Val Gln Gln Gly Val Phe Asp Lys Leu Arg Ser Gly Lys Tyr Ser
    100      105      110
Arg Gln Ala Ser Leu Thr Leu Leu Arg Gln Pro Ala Glu Gln Cys Arg
    115      120      125
Gln Leu Val Tyr Ser Phe Ile Arg Gln Ala Gly Arg Asp Gly Leu Arg
    130      135      140
Asn Leu Ile Ile Val His Gly Lys Gly Arg Glu Gln Gln Ser His Pro
    145      150      155      160
Asn Val Val Arg Ser Tyr Leu Ala Arg Trp Leu Thr Glu Phe Asp Glu
    165      170      175
Val Gln Ala Phe Cys Glu Ala Gln Pro His His Gly Gly Ser Gly Ala
    180      185      190
Cys Tyr Val Ser Leu Arg Lys Ser Glu Asp Ala Lys Arg Asp Asn Trp
    195      200      205
Glu Arg His Ala Lys Arg Ser Arg
    210      215

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<210> 7208

<211> 470

<212> PRT

<213> Enterobacter cloacae

<400> 7208

```

Ile Met Thr Leu Thr Ser Arg Trp Pro Ala Val Leu Gln Ala Val Met
    1      5      10      15
Gln Gly Gln Pro Arg Ala Leu Ala Asp Ser His Tyr Pro Gln Trp His
    20      25      30
Pro Ala Pro Val Thr Gly Leu Met Asn Asp Pro Asn Gly Phe Ile Trp
    35      40      45
Phe Ala Gly Arg Tyr His Leu Phe Tyr Gln Trp Asn Pro Leu Gly Cys
    50      55      60
Asn His Arg Tyr Lys Cys Trp Gly His Trp Ser Ser Ala Asp Leu Val
    65      70      75      80
His Trp Gln His Glu Pro Met Ala Leu Met Pro Asp Glu Glu Tyr Asp
    85      90      95
Arg Asn Gly Cys Tyr Ser Gly Ser Ala Val Asp Asn Asn Gly Val Leu
    100      105      110
Thr Leu Cys Tyr Thr Gly Asn Val Lys Phe Asp Asp Gly Gly Arg Thr
    115      120      125
Ala Trp Gln Cys Leu Ala Val Gln Asn Asp Asp Gly Thr Phe Ala Lys
    130      135      140
Leu Gly Pro Val Leu Pro Leu Pro Asp Gly Tyr Thr Gly His Val Arg
    145      150      155      160
Asp Pro Lys Val Trp Arg His Asp Gly Leu Trp Tyr Met Val Leu Gly
    165      170      175
Ala Gln Asp Arg His Lys Arg Gly Lys Val Leu Leu Phe Thr Ser Ala
    180      185      190
Asp Leu His Thr Trp Ala Ser Cys Gly Glu Ile Ala Gly His Gly Val
    195      200      205
Asn Gly Leu Thr Asp Ala Gly Tyr Met Trp Glu Cys Pro Asp Leu Phe
    210      215      220
Glu Leu Asp Gly Thr His Val Leu Ile Tyr Cys Pro Gln Gly Leu Ala
    225      230      235      240

```


Arg Glu Pro His Arg Tyr Leu Asn Thr Tyr Pro Ala Val Trp Met Ser
 245 250 255
 Gly Ala Phe Asp Tyr Gln Thr Pro Ala Phe Thr His Gly Glu Leu His
 260 265 270
 Glu Leu Asp Ala Gly Phe Glu Phe Tyr Ala Pro Gln Thr Thr Val Ala
 275 280 285
 Glu Asp Gly Arg Arg Ile Leu Ile Gly Trp Met Gly Val Pro Asp Gly
 290 295 300
 Glu Glu Met Leu Gln Pro Thr Arg Ala His Gly Trp Ile His Gln Met
 305 310 315 320
 Thr Cys Pro Arg Glu Leu Arg Tyr Arg Asp Gly Lys Leu Trp Gln Thr
 325 330 335
 Pro Val Arg Glu Leu Glu Thr Leu Arg Glu Asp Glu His His Trp Gln
 340 345 350
 Gly Arg Ala Ser Asp Ala Pro Val Leu Ala Gly Ala Arg Leu Glu Phe
 355 360 365
 Glu Leu Ser Ala Ser Cys Val Asn Val Asp Phe Ala Gly Ala Leu Arg
 370 375 380
 Leu Ile Val Asp Asp Ala Gly Ile Arg Leu Glu Arg Ala Ser Leu Lys
 385 390 395 400
 Thr Ala Asp Thr Leu Thr Arg Tyr Trp Gln Gly Thr Val His His Leu
 405 410 415
 Arg Val Leu Cys Asp Arg Ser Ser Val Glu Ile Phe Ile Asn His Gly
 420 425 430
 Glu Gly Val Met Ser Ser Arg Tyr Phe Pro Asp His Pro Ala Gln Val
 435 440 445
 Arg Phe Glu Gly Ala Ser Asp Ile Thr Leu Arg Tyr Trp Ser Leu Arg
 450 455 460
 Ser Cys Met Ile Glu
 465 470

<210> 7209

<211> 534

<212> PRT

<213> Enterobacter cloacae

<400> 7209

Arg Leu Asp Ser Ala Asp Asn Gln Arg Glu Ile Ile Ser Leu Arg Cys
 1 5 10 15
 Val Met Ser Leu Lys Lys Ser Ser Leu Ile Ile Leu Phe Ser Leu Leu
 20 25 30
 Phe Phe Phe Val Ala Ser Thr Ile Thr Ser Val Gly Leu Ile Ile Lys
 35 40 45
 Ser Asn Thr Ser Leu Asp Asn Val Asn Lys Glu Ile Gln Val Val Leu
 50 55 60
 Ser Ile Ile Asp Pro Ile Asn His Ser Arg Thr Leu Arg Val Arg Val
 65 70 75 80
 Met Glu Tyr Val Lys Met Val Glu Ala Gly Asp Ala Thr Asp Pro Ser
 85 90 95
 Ala Lys Leu Ala Ser Val Lys Glu Ala Leu Thr Lys Ala Asp Ser Ala
 100 105 110
 Phe Ser Ala Phe Met Ala Ser Pro Arg Leu Gln Glu Glu Ala Pro Leu
 115 120 125
 Val Thr Ala Tyr Gln Glu Ala Trp Gln Asn Tyr Arg Asn Gln Gly Leu
 130 135 140
 Ala Pro Leu Ile Ala Ala Ala Ala His Asp Val Ser Arg Phe Asn
 145 150 155 160
 Ala Leu Ile Pro Val Val Ser Gln Leu Asp Arg Gln Tyr Glu Ile Val
 165 170 175
 Leu Asp Gln Val Leu Ser Val His Gln Lys Tyr Ala Lys Thr Leu Asn
 180 185 190

Glu Glu Ala Ser His Asp Phe Val Ser Gly Leu Val Ile Ile Ala Ser
 195 200 205
 Ile Ala Val Leu Phe Val Val Ile Phe Ala Val Ser Leu Leu Met
 210 215 220
 Lys Arg Val Val Phe Ala Pro Val Asn Leu Ala Arg Glu His Cys Arg
 225 230 235 240
 Gln Ile Ala Ala Gly Lys Leu Asp Val Pro Val Pro Ile Lys Arg Asp
 245 250 255
 Ser Gly Asn Glu Ile Asp His Leu Met Ser Ser Met Glu Gln Met Arg
 260 265 270
 Gln Ala Leu Leu Ser Thr Ile Ser Gln Val Arg Asp Ala Ser Gln Thr
 275 280 285
 Val Thr His Ala Ala Gln Glu Ile Ala Ser Gly Asn Ile Asp Leu Ala
 290 295 300
 Ser Arg Thr Glu Gln Gln Ala Ser Ala Leu Thr Gln Thr Ala Ala Ser
 305 310 315 320
 Met Glu Glu Leu Ser Ala Thr Val Ala Asn Asn Thr Asp Asn Val Phe
 325 330 335
 Gln Ala Gly Lys Leu Val Gln Asp Ala Val Lys Asn Ala His Thr Gly
 340 345 350
 Glu Ala Val Thr Arg Glu Val Ile Glu Thr Met Ser Thr Ile Ala Ser
 355 360 365
 Asn Ser Lys Arg Ile Glu Asp Ile Thr Ser Val Ile Asn Ser Ile Ala
 370 375 380
 Phe Gln Thr Asn Ile Leu Ala Leu Asn Ala Ala Val Glu Ala Ala Arg
 385 390 395 400
 Ala Gly Ala Gln Gly Arg Gly Phe Ala Val Val Ala Ser Glu Val Arg
 405 410 415
 Thr Leu Ala Gln Lys Ser Ala Val Ala Ala Lys Asp Ile Glu Ser Leu
 420 425 430
 Ile Ala Gln Ser Val Ser Ser Val Lys Asn Gly Ala Glu Leu Val Asn
 435 440 445
 Arg Ser Gly Glu Val Ile Asp Ser Ile Ile Ser Ser Val Asn Lys Val
 450 455 460
 His Met Leu Met Glu Gln Ile Ser Val Ala Ser Glu Glu Gln Ser Arg
 465 470 475 480
 Gly Ile Gly Gln Val Gly Gln Ala Val Thr Glu Met Asp Gly Val Thr
 485 490 495
 Gln Gln Asn Ala Ala Leu Val Gln Gln Ser Ala Ala Ala Ala Ser
 500 505 510
 Leu Glu Glu Gln Ala Gln Gln Leu Ser Gln Ser Ile Ser Arg Phe Ser
 515 520 525
 Leu Pro Ala Thr Ala
 530

<210> 7210

<211> 291

<212> PRT

<213> Enterobacter cloacae

<400> 7210

Glu Arg Val Ser Phe Gln Pro Arg Gly Glu Asp Leu Ala Gly Thr Gly
 1 5 10 15
 Gly Gly Val Tyr Asp Val Lys Trp Asn Asp Thr Leu Arg Ser Asn Phe
 20 25 30
 Ser Leu Tyr Gly Arg Asn Phe Gly Ser Glu Glu Glu Ile Asp Asn Asn
 35 40 45
 Val Gln Asn Tyr Ile Leu Ser Met Asn His Phe Ala Gly Pro Val Gln
 50 55 60
 Met Met Val Ser Gly Leu Arg Ala Lys Asp Asn Asp Asp Arg Lys Asp
 65 70 75 80

Ser Asn Gly Asp Pro Ile Lys Thr Asp Ala Ala Asn Asn Gly Val His
 85 90
 Ala Leu Val Gly Leu His Asn Glu Ser Phe Tyr Gly Leu Arg Glu Gly
 100 105 110
 Ser Ala Lys Thr Ala Leu Leu Tyr Gly His Gly Leu Gly Ala Glu Val
 115 120 125
 Lys Ser Ile Gly Ser Asp Gly Ala Leu Leu Ser Glu Ala Asp Thr Trp
 130 135 140
 Arg Phe Ala Ser Tyr Gly Val Thr Pro Leu Gly Gly Gly Trp His Ile
 145 150 155 160
 Ala Pro Ala Val Leu Ala Gln Ser Ser Lys Asp Arg Tyr Val Lys Gly
 165 170 175
 Asp Ser Tyr Glu Trp Val Thr Leu Asn Thr Arg Leu Ile Lys Glu Val
 180 185 190
 Thr Gln Asn Phe Ala Leu Ala Phe Glu Gly Ser Tyr Gln Tyr Met Asp
 195 200 205
 Leu Ser Pro Glu Gly Tyr Lys Asp Arg Asn Ala Val Asn Gly Ser Phe
 210 215 220
 Tyr Lys Leu Thr Phe Ala Pro Thr Leu Lys Ala Gly Lys Ile Gly Asp
 225 230 235 240
 Phe Phe Ser Arg Pro Glu Leu Arg Leu Phe Ala Thr Trp Met Asp Trp
 245 250 255
 Ser Asn Lys Leu Asp Asn Tyr Ala Ser Asp Asp Ala Phe Gly Ser Thr
 260 265 270
 Gly Phe Asn Ala Gly Gly Glu Trp Asn Phe Gly Val Gln Met Glu Thr
 275 280 285
 Trp Phe
 290

<210> 7211

<211> 479

<212> PRT

<213> Enterobacter cloacae

<400> 7211

Pro Phe Thr Leu Pro His Arg Gly Gly Val Ser Asn Thr Ile Lys Arg
 1 5 10 15
 Gly Gln Glu Glu Val Ser Met Asp Phe Asn His Ile Ala Arg Glu Leu
 20 25 30
 Ile Pro Leu Leu Gly Gly Lys Glu Asn Ile Ala Ser Ala Ala His Cys
 35 40 45
 Ala Thr Arg Leu Arg Leu Val Leu Val Asp Asp Ala Leu Ala Asp Gln
 50 55 60
 Gln Ala Ile Gly Lys Val Glu Gly Val Lys Gly Cys Phe Arg Asn Ala
 65 70 75 80
 Gly Gln Met Gln Val Ile Phe Gly Thr Gly Val Val Asn Lys Val Tyr
 85 90 95
 Ala Ala Phe Ile Gln Ala Ala Gly Ile Ser Glu Ser Ser Lys Ser Glu
 100 105 110
 Ala Ala Asp Ile Ala Ala Arg Lys Leu Asn Pro Phe Gln Arg Ile Ala
 115 120 125
 Arg Leu Leu Ser Asn Ile Phe Val Pro Ile Ile Pro Ala Ile Val Ala
 130 135 140
 Ser Gly Leu Leu Met Gly Leu Leu Gly Met Val Lys Thr Tyr Gly Trp
 145 150 155 160
 Val Asn Pro Asp Asn Ala Leu Tyr Ile Met Leu Asp Met Cys Ser Ser
 165 170 175
 Ala Ala Phe Ile Leu Pro Ile Leu Ile Gly Phe Thr Ala Ala Arg
 180 185 190
 Glu Phe Gly Gly Asn Pro Tyr Leu Gly Ala Thr Leu Gly Gly Ile Leu
 195 200 205

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | His | Pro | Ala | Leu | Thr | Asn | Ala | Trp | Gly | Val | Ala | Ser | Gly | Phe | His |
| 210 | | | | | | 215 | | | | | 220 | | | | |
| Thr | Met | Asn | Phe | Phe | Gly | Leu | Glu | Ile | Ala | Met | Ile | Gly | Tyr | Gln | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Val | Phe | Pro | Val | Leu | Leu | Ala | Val | Trp | Phe | Met | Ser | Ile | Val | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Lys | Gln | Leu | Arg | Arg | Ala | Ile | Pro | Asp | Ala | Leu | Asp | Leu | Ile | Leu | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Phe | Leu | Thr | Val | Ile | Ile | Ser | Gly | Phe | Ile | Ala | Leu | Leu | Ile | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Pro | Ala | Gly | Arg | Ala | Leu | Gly | Asp | Gly | Ile | Ser | Phe | Ile | Leu | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Leu | Ile | Ala | His | Ala | Gly | Trp | Leu | Ala | Gly | Leu | Leu | Phe | Gly | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Tyr | Ser | Val | Ile | Val | Ile | Thr | Gly | Ile | His | His | Ser | Phe | His | Ala |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Ile | Glu | Ala | Gly | Leu | Leu | Gly | Asn | Pro | Ser | Ile | Gly | Val | Asn | Phe | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Pro | Ile | Trp | Ala | Met | Ala | Asn | Val | Ala | Gln | Gly | Gly | Ala | Cys | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Val | Trp | Phe | Lys | Thr | Arg | Asp | Ala | Lys | Ile | Lys | Ala | Ile | Thr | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Pro | Ser | Ala | Phe | Ser | Ala | Met | Leu | Gly | Ile | Thr | Glu | Ala | Ala | Ile | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Ile | Asn | Leu | Arg | Phe | Val | Lys | Pro | Phe | Ile | Ala | Ala | Leu | Ile | Gly |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Gly | Ala | Ala | Gly | Gly | Ala | Trp | Val | Val | Ser | Val | His | Val | Tyr | Met | Thr |
| | | | 420 | | | | 425 | | | | | | 430 | | |
| Ala | Val | Gly | Leu | Thr | Ala | Ile | Pro | Gly | Met | Ala | Ile | Val | Gln | Ala | Ser |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ser | Leu | Leu | Asn | Tyr | Ile | Ile | Gly | Met | Val | Ile | Ala | Phe | Gly | Val | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Phe | Thr | Val | Ser | Leu | Leu | Leu | Lys | Tyr | Lys | Thr | Asp | Ser | Glu | | |
| 465 | | | | | 470 | | | | | 475 | | | | | |

<210> 7212

<211> 341

<212> PRT

<213> Enterobacter cloacae

<400> 7212

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Val | Val | Arg | Lys | Thr | Lys | Arg | Val | Thr | Ile | Lys | Asp | Ile | Ala | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ala | Gly | Val | Ser | Lys | Ala | Thr | Ala | Ser | Leu | Val | Leu | Asn | Gly | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Lys | Glu | Leu | Arg | Val | Ala | Glu | Glu | Thr | Arg | Glu | Arg | Val | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Ala | Lys | Glu | His | His | Tyr | Gln | Pro | Ser | Ile | His | Ala | Arg | Ser | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Arg | Asp | Asn | Arg | Ser | His | Thr | Ile | Gly | Leu | Val | Val | Pro | Glu | Ile | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Tyr | Gly | Phe | Ala | Val | Phe | Ser | His | Glu | Leu | Glu | Thr | Leu | Cys | Arg |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Ala | Gly | Val | Gln | Leu | Leu | Ile | Ser | Cys | Ser | Asp | Glu | Asn | Pro | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Glu | Thr | Val | Val | Val | Asn | Asn | Met | Val | Ala | Arg | Gln | Val | Asp | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Ile | Val | Ala | Ser | Ser | Met | Leu | Asn | Asp | Ala | Asp | Tyr | Gln | Lys | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Glu | Gln | Leu | Pro | Val | Val | Leu | Phe | Asp | Arg | His | Met | Asn | Asp | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Thr Leu Pro Leu Val Leu Thr Asp Ser Ile Thr Pro Thr Ala Thr Leu
 165 170 175
 Val Ala Asp Ile Ala Arg Lys His Pro Asp Glu Phe Tyr Phe Leu Gly
 180 185 190
 Gly Gln Pro Arg Leu Ser Pro Thr Arg Asp Arg Leu Glu Gly Phe Lys
 195 200 205
 Gln Gly Leu Arg Asp Ala Gly Val Glu Leu Arg Pro Glu Trp Ile Ile
 210 215 220
 His Gly Asn Tyr His Pro Ser Ser Gly Tyr Glu Met Phe Ala Glu Leu
 225 230 235 240
 Cys Ala Arg Leu Gly Arg Pro Pro Lys Ala Leu Phe Thr Ala Ala Cys
 245 250 255
 Gly Leu Leu Glu Gly Val Leu Arg Tyr Met Gly Gln His Asn Leu Leu
 260 265 270
 Gln Ser Asp Met Arg Leu Ala Ser Phe Asp Asp His Tyr Leu Tyr Asp
 275 280 285
 Ser Leu Thr Ile Pro Val Asp Thr Val Arg Gln Asp Asn Arg Gln Leu
 290 295 300
 Ala Trp His Cys Phe Asp Leu Ile Gly Lys Leu Ile Glu Gly Glu Thr
 305 310 315 320
 Pro Glu Pro Ile Gln Arg Lys Leu Asp Ala Thr Leu Gln Arg Arg Tyr
 325 330 335
 Lys Ala Val Glu
 340

<210> 7213

<211> 279

<212> PRT

<213> Enterobacter cloacae

<400> 7213

Ser Val Asp Arg Ala Ile Asn Phe Asp His Ser Glu Lys Gln Tyr Leu
 1 5 10 15
 Arg Gly Val Val Met Leu Gln Arg Leu Ala Lys Lys Lys Val Leu Leu
 20 25 30
 Leu Ser Ala Leu Met Val Ser Gly Leu Val Arg Ala Glu Glu Ser Leu
 35 40 45
 Pro Asp Val Val Lys His Phe Ser Glu Gln Gln Asp Ile Lys Ile Ile
 50 55 60
 Lys Lys Ile Asp Ala Pro Gly Gly Ala Pro Ala Trp Leu Gly Gln Tyr
 65 70 75 80
 Gln Asp Met Gly Val Thr Leu Phe Leu Thr Pro Asp Gly Lys His Val
 85 90 95
 Val Ser Gly Tyr Leu Tyr Asp Glu Lys Gly Thr Asn Leu Ser Glu Ala
 100 105 110
 Phe Phe Gln Lys Glu Ile Tyr Ala Pro Met Gly Arg Glu Met Trp Lys
 115 120 125
 Lys Leu Asn Ala Ala His Pro Leu Lys Glu Gly Ala Glu Ser Ala Pro
 130 135 140
 Arg Lys Val Phe Val Phe Ala Asp Pro Phe Cys Pro Tyr Cys Lys Gln
 145 150 155 160
 Phe Trp Ala Glu Ala Gln Pro Trp Val Lys Ala Gly Lys Val Gln Leu
 165 170 175
 Asn Thr Leu Leu Val Ala Phe Leu Asn Pro Asn Ser Gly Arg Asn Ala
 180 185 190
 Ser Ala Ile Leu Asn Ala Lys Asp Pro Val Ser Ala Trp Lys Ala Tyr
 195 200 205
 Glu Leu Ser Gly Gly Lys Lys Leu Pro Lys Pro Glu Gly Ala Ala Ser
 210 215 220
 Arg Glu Thr Val Glu Ile Leu Gln Asn His Gln Thr Leu Met Asp Ser
 225 230 235 240


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<210> 7214
<211> 197
<212> PRT
<213> Enterobacter cloacae
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[illegible]

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<210> 7215
<211> 298
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | His | Gly | Met | Gln | Phe | Arg | Leu | Met | Arg | Asn | Phe | Ile | Val | Val | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Glu | Leu | His | Met | His | Arg | Ala | Ala | Glu | Arg | Leu | Asn | Met | Ala | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Ala | Leu | Ser | Gln | Gln | Ile | Lys | Thr | Leu | Glu | Asp | Arg | Leu | Gly | Val |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Met | Leu | Phe | Ser | Arg | Ala | Asn | Arg | Arg | Leu | Thr | Leu | Thr | Pro | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Ala | Phe | Leu | Ser | Lys | Ala | Arg | Val | Ala | Ile | Leu | Met | Thr | Asp | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Ile | Leu | Asp | Ala | Arg | Gln | Thr | Ala | Arg | Gly | Glu | Gln | Gly | Val | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Leu | Gly | Cys | Val | Ser | Ser | Ala | Ile | Phe | Asp | Ser | Lys | Leu | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | Arg | Leu | Leu | His | Glu | Lys | Trp | Pro | Ala | Ile | Ser | Leu | Ser | Met |


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<210> 7216
<211> 516
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| <400> 7216 | | | | | | | | | | | | | | | |
| Met 1 | Met | Gln | Leu | Ile 5 | Ala | Leu | Phe | Val | Arg 10 | Leu | Arg | Met | Asp | Ala 15 | Phe |
| Ile | Arg | Gly | Gly 20 | Lys | Asn | Met | Glu | Asn 25 | His | Ile | Asn | Asp | Leu 30 | Arg | Ser |
| Ala | Ile | Glu 35 | Leu | Leu | Lys | Arg | His 40 | Glu | Gly | Gln | Tyr | Leu 45 | Glu | Thr | Ser |
| His | Pro 50 | Val | Asp | Pro | Asp | Ala 55 | Glu | Leu | Ala | Gly | Val 60 | Tyr | Arg | His | Ile |
| Gly 65 | Ala | Gly | Gly | Thr | Val 70 | Lys | Arg | Pro | Thr | Arg | Ile 75 | Gly | Pro | Ala 80 | Met |
| Met | Phe | Asn | Ala | Ile 85 | Lys | Gly | Tyr | Pro | Asp 90 | Ser | Arg | Ile | Leu 95 | Val | Gly |
| Met | His | Ala | Ser 100 | Arg | Glu | Arg | Ala | Ala 105 | Leu | Leu | Leu | Gly | Cys 110 | Asp | Pro |
| Ser | Glu | Leu 115 | Ala | Lys | His | Val | Gly 120 | Gln | Ala | Val | Lys | Asn 125 | Pro | Ile | Ala |
| Pro | Val 130 | Val | Val | Pro | Ala | Ala 135 | Gln | Ala | Pro | Cys | Gln 140 | Glu | Gln | Val | Phe |
| Tyr 145 | Ala | Asp | Asn | Pro | Asp 150 | Phe | Asp | Leu | Arg | Lys 155 | Leu | Leu | Pro | Ala 160 | Pro |
| Thr | Asn | Thr | Pro 165 | Ile | Asp | Ala | Gly | Pro | Phe 170 | Cys | Leu | Gly | Leu 175 | Val | |
| Leu | Ala | Ser | Asp 180 | Pro | Glu | Asp | Ala 185 | Ser | Leu | Thr | Asp | Val 190 | Thr | Ile | His |
| Arg | Leu | Cys 195 | Val | Gln | Glu | Arg | Asp 200 | Glu | Leu | Ser | Met | Phe 205 | Leu | Ala | Ala |
| Gly | Arg 210 | His | Ile | Glu | Val | Phe 215 | Arg | Lys | Lys | Ala | Glu 220 | Glu | Ala | Gly | Lys |
| Pro 225 | Leu | Pro | Val | Thr | Ile 230 | Asn | Met | Gly | Leu | Asp 235 | Pro | Ala | Ile | Tyr | Ile |
| Gly | Ala | Cys | Phe | Glu | Ala | Pro | Thr | Thr | Pro | Phe | Gly | Tyr | Asn | Glu | Leu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | 255 | | | | |
| Gly | Val | Ala | Gly | Ala | Leu | Arg | Gln | Thr | Pro | Val | Glu | Leu | Val | Gln | Gly | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Val | Ala | Val | Asn | Glu | Lys | Ala | Ile | Ala | Arg | Ala | Glu | Ile | Ile | Ile | Glu | | |
| | | | 275 | | | | 280 | | | | | 285 | | | | | |
| Gly | Glu | Leu | Leu | Pro | Gly | Val | Arg | Val | Glu | Glu | Asp | Gln | His | Thr | His | | |
| | 290 | | | | 295 | | | | | | 300 | | | | | | |
| Thr | Gly | His | Ala | Met | Pro | Glu | Phe | Pro | Gly | Tyr | Cys | Gly | Glu | Ala | Asn | | |
| 305 | | | | | 310 | | | | 315 | | | | | | 320 | | |
| Pro | Ser | Leu | Pro | Val | Ile | Lys | Val | Lys | Ala | Val | Thr | Met | Arg | His | Gln | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Ala | Ile | Leu | Gln | Thr | Leu | Val | Gly | Pro | Gly | Glu | Glu | His | Thr | Thr | Leu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Ala | Gly | Leu | Pro | Thr | Glu | Ala | Ser | Ile | Arg | Asn | Ala | Val | Glu | Glu | Ala | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Ile | Pro | Gly | Phe | Leu | Gln | Asn | Val | Tyr | Ala | His | Thr | Ala | Gly | Gly | Gly | | |
| | 370 | | | | 375 | | | | | | 380 | | | | | | |
| Lys | Phe | Leu | Gly | Val | Leu | Gln | Val | Lys | Lys | Arg | Gln | Pro | Ser | Asp | Glu | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Gly | Arg | Gln | Gly | Gln | Ala | Ala | Leu | Ile | Ala | Leu | Ala | Thr | Tyr | Ser | Glu | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Leu | Lys | Asn | Ile | Ile | Leu | Val | Asp | Glu | Asp | Val | Asp | Ile | Phe | Asp | Ser | | |
| | | 420 | | | | | | 425 | | | | | 430 | | | | |
| Asp | Asp | Ile | Leu | Trp | Ala | Met | Thr | Thr | Arg | Met | Gln | Gly | Asp | Val | Ser | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Ile | Thr | His | Leu | Pro | Gly | Ile | Arg | Gly | His | Gln | Leu | Asp | Pro | Ser | Gln | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Ala | Pro | Asp | Tyr | Ser | Pro | Ser | Ile | Arg | Gly | Asn | Gly | Ile | Thr | Cys | Lys | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Thr | Ile | Phe | Asp | Cys | Thr | Val | Pro | Trp | Ala | Leu | Lys | Ser | Arg | Phe | Glu | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Arg | Ala | Pro | Phe | Met | Glu | Val | Asp | Pro | Thr | Pro | Trp | Ala | Pro | Glu | Leu | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Phe | Lys | Lys | | | | | | | | | | | | | | | |
| | | 515 | | | | | | | | | | | | | | | |

<210> 7217

<211> 369

<212> PRT

<213> Enterobacter cloacae

<400> 7217

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Arg | Arg | Tyr | Arg | Arg | Ala | Val | Lys | His | Pro | Leu | Arg | Pro | Ile | His | Ser | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Met | Asp | Arg | Ser | His | Ser | Leu | Pro | Gly | Gly | Ser | Gln | Lys | Ser | Gln | Leu | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Asn | Tyr | Asp | Glu | Leu | Thr | Ile | Glu | Glu | Pro | Ile | Met | Phe | Thr | Val | Lys | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Lys | Leu | Ala | Ile | Ser | Thr | Leu | Leu | Ala | Gly | Ser | Val | Leu | Phe | Phe | Pro | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Ala | Ile | His | Ala | Val | Ala | Ser | Val | Pro | Gln | His | Val | Val | Lys | Gln | Gln | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Ala | Gly | Gly | Tyr | Ser | Val | Gln | Val | Gly | Asp | Thr | Ile | Val | Thr | Ala | Phe | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Thr | Asp | Gly | Ser | Val | Pro | Gln | Asp | Leu | His | Ala | Leu | Leu | Arg | Arg | Thr | | |
| | | 100 | | | | | 105 | | | | | | 110 | | | | |
| Thr | Ala | Glu | Asn | Thr | Asp | Ala | Leu | Leu | Ala | Lys | Asn | Phe | Gln | Ala | Asn | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Pro | Val | Glu | Ala | Ser | Ile | Asn | Ala | Phe | Tyr | Ile | Ala | Ile | Pro | Gly | His | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Lys | Ile | Leu | Val | Asp | Thr | Gly | Ser | Gly | Gln | Leu | Phe | Gly | Pro | Gly | Lys | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gly | Gly | Arg | Leu | Ile | Glu | Ser | Leu | Ala | Thr | Gln | Gly | Ile | Lys | Pro | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Ile | Thr | Asp | Ile | Leu | Ile | Thr | His | Ala | His | Ser | Asp | His | Ala | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Leu | Val | Lys | Asp | Gly | Gln | Arg | Val | Phe | Thr | Arg | Ala | Gln | Val | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Gly | Lys | Pro | Asp | Ile | Asp | Phe | Phe | Phe | Asn | Asp | Glu | Asn | Gln | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Ser | Gly | Tyr | Asp | Gln | Asn | Tyr | Phe | Asp | Val | Ala | His | Lys | Thr | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Pro | Tyr | Leu | Asp | Ala | Gly | Lys | Val | Thr | Thr | Phe | Ser | Gly | Thr | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Leu | Leu | Pro | Gly | Ile | Ser | Gly | Thr | Val | His | Pro | Gly | His | Thr | Pro |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Ser | Ala | Phe | Tyr | Thr | Leu | Glu | Ser | Lys | Gly | Glu | Lys | Met | Thr | Phe |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Gly | Asp | Ile | Ile | His | Val | Ala | Ala | Val | Gln | Phe | Pro | Gln | Pro | Asn |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Thr | Ile | Ala | Tyr | Asp | Glu | Asp | Gln | Asp | Gly | Ala | Ala | Arg | Val | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Ala | Ala | Phe | Ala | Glu | Phe | Val | Lys | Asn | Lys | Ala | Leu | Ile | Ala | Ala |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Pro | His | Leu | Pro | Phe | Pro | Gly | Ile | Gly | Tyr | Val | Thr | Lys | Gly | Glu | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Gly | Tyr | Ala | Trp | Val | Pro | Val | Thr | Tyr | Thr | Asn | Arg | Asp | Ala | Lys |
| | | 355 | | | | | 360 | | | | | 365 | | | |

<210> 7218

<211> 123

<212> PRT

<213> Enterobacter cloacae

<400> 7218

| | | | | | | | | | | | | | | | |
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| Arg | His | Leu | Gln | Glu | Gly | Ala | Val | Ile | Ile | Asn | Thr | Thr | Ser | Val | Gln |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Ala | Phe | Lys | Pro | Ser | Ala | Ile | Leu | Val | Asp | Tyr | Ala | Gln | Thr | Lys | Ala |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Cys | Asn | Val | Ala | Phe | Thr | Lys | Ser | Leu | Ala | Gln | Gln | Leu | Gly | Pro | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Ile | Arg | Val | Asn | Ala | Val | Ala | Pro | Gly | Pro | Tyr | Trp | Thr | Pro | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Ser | Ser | Gly | Gly | Gln | Pro | Gln | Ser | Lys | Val | Gln | Lys | Phe | Gly | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Thr | Pro | Leu | Gly | Arg | Pro | Gly | Gln | Pro | Val | Glu | Ile | Ala | Pro | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Val | Leu | Phe | Ala | Ser | Asp | Thr | Cys | Ser | Tyr | Ala | Ser | Gly | Gln | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Trp | Cys | Ser | Asp | Gly | Gly | Thr | Gly | Val | Leu | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 7219

<211> 312

<212> PRT

<213> Enterobacter cloacae

<400> 7219

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ile | Pro | Thr | Val | Thr | Gln | Asn | Lys | Met | Ser | Pro | Ser | Asp | Met | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

Met Asp Leu Ile Leu Thr Leu Asp Ala Leu Leu Arg Asp Gln Asn Ile
 20 25 30
 Thr His Ala Ala Arg Leu Gly Ile Ser Gln Pro Ala Met Ser Ala
 35 40 45
 Arg Leu Ala Arg Leu Arg Val Leu Phe Gly Glu Pro Leu Phe Val Pro
 50 55 60
 Ser Pro His Gly Arg Gly Val Leu Pro Thr Pro Arg Ala Glu Ala Leu
 65 70 75 80
 Arg Pro Gln Val Ala Thr Val Leu Gln Gly Ile Ser Ala Met Leu Glu
 85 90 95
 Pro Thr Thr Phe Asn Ala Gln Asn Ser Asn Arg Thr Phe Val Ile Ala
 100 105 110
 Leu His Glu Asn Pro Ala Leu Met Leu Gly Ala Glu Leu Gln Asn Gln
 115 120 125
 Ile Ser Ser Ala Ala Pro Gly Ile Arg Leu Arg Phe Ala Leu Pro Glu
 130 135 140
 Thr Gln Leu Leu Pro Ala Gln Met Glu Asn Gly Asp Val Asp Ile Tyr
 145 150 155 160
 Val Gly Val Asn Ala Val Ala His Asp Ala Trp Val Arg Arg Lys Leu
 165 170 175
 Phe Asp Asp Glu Tyr Ala Thr Ala Gln Arg Lys Gly His Pro Arg Gly
 180 185 190
 Thr Gly Pro Met Asp Leu Asp Ser Tyr Cys Ser Leu Ser His Leu Val
 195 200 205
 Val Ser Ser Glu Gly Asp Pro Phe Ala Gly Phe Val Asp Gln His Leu
 210 215 220
 Ala Gly Leu Gly His Gln Arg Asn Val Val Met Ser Thr Gln Ser Tyr
 225 230 235 240
 Ala Met Ala Pro Ala Ile Val Ala Gly Thr Asp Leu Leu Cys Thr Leu
 245 250 255
 Pro Arg Arg Met Leu Leu Arg Phe Thr Gln Thr Leu Asp Ile Phe Pro
 260 265 270
 Pro Pro Leu Asp Leu Pro Pro Ile Val Ile Gly Met Tyr Trp His Pro
 275 280 285
 Lys Asn Ser Gln Asp Pro Ala Asn Arg Trp Leu Arg Glu Gln Leu Leu
 290 295 300
 Gln Ala Ala Gly Arg Gln Val
 305 310

<210> 7220

<211> 478

<212> PRT

<213> Enterobacter cloacae

<400> 7220

Ser Ser Cys Ala Ala Pro His Gly Arg Gly Arg Lys Leu Lys Pro Ser
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 Thr Ser Thr Pro Phe Thr Met Thr Val Thr Gly Ser Arg Thr Asn Arg
 20 25 30
 Arg Leu Ile Pro Gly Arg Ile Ala Gly His Pro Gly Ala Asn Thr Gln
 35 40 45
 Met Met Arg His Val Lys Arg Thr Gly Ala Leu Leu Gly Cys Ala Leu
 50 55 60
 Leu Leu Val Ser Cys Thr Ser Lys Pro Pro Lys Ser Leu Val Thr Pro
 65 70 75 80
 Leu Pro Gln Ala Lys Pro Val Gln Gln Thr Asn Glu Pro Met Arg Gly
 85 90 95
 Ile Trp Leu Ala Thr Val Ser Arg Leu Asp Trp Pro Pro Val Ser Ser
 100 105 110
 Val Asn Gly Arg Ser Ala Asp Gln Arg Ile Ala Gln Gln Gln Arg Ala
 115 120 125

Leu Thr Asp Lys Leu Asp Lys Leu Lys Asn Leu Gly Ile Asn Thr Val
 130 135 140
 Phe Phe Gln Val Lys Pro Asp Ser Thr Ala Leu Trp Ala Ser Lys Ile
 145 150 155 160
 Leu Pro Trp Ser Asp Thr Leu Thr Gly Thr Ile Gly Glu Asp Pro Gly
 165 170 175
 Tyr Asp Pro Leu Gln Phe Met Leu Asp Glu Ala His Lys Arg Gly Met
 180 185 190
 Lys Val His Ala Trp Phe Asn Pro Tyr Arg Val Ser Thr Asn Thr Lys
 195 200 205
 Pro Ser Thr Ile Ala Ala Leu Asn Arg Thr Ser Ser Leu His Pro Ser
 210 215 220
 Ser Val Tyr Val Leu His Pro Glu Trp Ile Arg Thr Ser Gly Asp Arg
 225 230 235 240
 Phe Val Leu Asp Pro Gly Ile Pro Glu Val Arg Asp Trp Ile Thr Gln
 245 250 255
 Val Val Met Glu Val Val Asn His Tyr Pro Val Asp Gly Val Gln Phe
 260 265 270
 Asp Asp Tyr Phe Tyr Thr Glu Thr Pro Gly Ser Pro Leu Asn Asp Ala
 275 280 285
 Trp Thr Phe Arg Arg Tyr Gly Glu Gly Phe Ser Ser Lys Ala Asp Trp
 290 295 300
 Arg Arg His Asn Thr Gln Gln Leu Ile Val Gln Val Ser Arg Ala Ile
 305 310 315 320
 Lys Gln Ala Lys Pro Glu Val Glu Phe Gly Val Ser Pro Ala Gly Val
 325 330 335
 Trp Arg Asn Arg Ser Phe Asp Pro Ala Gly Ser Asp Thr Arg Gly Ala
 340 345 350
 Ala Ala Tyr Asp Glu Ser Tyr Ala Asp Thr Arg Lys Trp Val Gln Gln
 355 360 365
 Gly Leu Leu Asp Tyr Ile Ala Pro Gln Ile Tyr Trp Pro Phe Ala Arg
 370 375 380
 Asp Ala Ala Arg Tyr Asp Val Leu Thr Lys Trp Trp Ala Asp Val Val
 385 390 395 400
 Lys Pro Thr His Thr Arg Leu Tyr Ile Gly Ile Ala Phe Tyr Lys Val
 405 410 415
 Gly Ala Pro Ser Arg Asn Glu Pro Asp Trp Thr Val Asn Gly Gly Ile
 420 425 430
 Pro Glu Leu Lys Lys Gln Leu Asp Leu Asn Asp Ser Leu Pro Asp Val
 435 440 445
 Lys Gly Thr Ile Leu Phe Arg Glu Asp Tyr Leu Asn Gln Pro Gln Thr
 450 455 460
 Gln Glu Ala Val Asn Tyr Leu Arg Gly Arg Trp Gly Ser
 465 470 475

<210> 7221

<211> 106

<212> PRT

<213> Enterobacter cloacae

<400> 7221

Leu His Gly Leu Pro Leu His Arg Tyr Gly His Phe Ser Arg His Pro
 1 5 10 15
 Ala Pro Ala Tyr Arg Pro Gly Lys Arg Cys Arg Cys Tyr Ser Pro Pro
 20 25 30
 Ser Arg Ser Ala Leu Pro Cys Trp Arg Pro Ser Gly Ser Gly Pro Lys
 35 40 45
 Pro Val Ala Arg Tyr Gly Arg Pro Gly Arg Tyr Cys Arg Arg Gln Phe
 50 55 60
 Pro Ala Leu His Ala Ser Arg Phe Gly Trp His Arg Ala Pro Glu Lys
 65 70 75 80

Trp Trp Arg Ala Ala Pro Gly Ala Ser Ala Pro Ser Arg Thr Ser Gly
 85 90 95
 Asp Arg Phe His Ser Arg Asn His Ala
 100 105

<210> 7222

<211> 203

<212> PRT

<213> Enterobacter cloacae

<400> 7222

Gln Glu Leu Arg Lys Arg Ser Arg Ile Met Ala Val Gln Thr Lys Val
 1 5 10 15
 Val Arg Phe Phe Met Ala Gly Ala Val Ala Ile Ala Leu Ser Gly Cys
 20 25 30
 Val Thr Val Pro Asp Ala Ile Lys Gly Thr Ser Pro Thr Pro Gln Gln
 35 40 45
 Asp Leu Val Arg Val Met Asn Ala Pro Glu Leu Tyr Val Gly Gln Glu
 50 55 60
 Ala Arg Phe Gly Gly Lys Val Val Glu Val Leu Asn Gln Gln Gly Lys
 65 70 75 80
 Thr Arg Leu Glu Ile Ala Thr Val Pro Leu Asp Asp Gly Ala Arg Pro
 85 90 95
 Val Leu Gly Glu Ala Ser Arg Gly Arg Ile Tyr Ala Asp Val Ser Gly
 100 105 110
 Phe Leu Asp Pro Val Asp Phe Arg Gly Gln Leu Val Thr Val Val Gly
 115 120 125
 Pro Ile Thr Gly Ser Val Ala Gly Lys Ile Gly Asn Thr Pro Tyr Lys
 130 135 140
 Phe Met Thr Met Gln Val Asn Gly Tyr Lys Arg Trp Arg Ile Ala Gln
 145 150 155 160
 Gln Val Val Met Pro Pro Gln Pro Ile Asp Pro Trp Met Trp Gly Pro
 165 170 175
 His Pro Tyr Arg Tyr Gly Tyr Gly Gly Trp Gly Trp Tyr Asn Pro Gly
 180 185 190
 Pro Ala Gln Val Gln Thr Ile Val Thr Glu
 195 200

<210> 7223

<211> 524

<212> PRT

<213> Enterobacter cloacae

<400> 7223

Gln Glu Arg Val Met Glu Phe Leu Met Asp Pro Ser Ile Trp Val Gly
 1 5 10 15
 Leu Leu Thr Leu Val Val Leu Glu Ile Val Leu Gly Ile Asp Asn Leu
 20 25 30
 Val Phe Ile Ala Ile Leu Ala Asp Lys Leu Pro Pro Lys Gln Arg Asp
 35 40 45
 Lys Ala Arg Leu Ile Gly Leu Ser Leu Ala Leu Ile Met Arg Leu Gly
 50 55 60
 Leu Leu Ser Val Ile Ser Trp Met Val Thr Leu Thr Lys Pro Leu Phe
 65 70 75 80
 Thr Val Met Asp Phe Thr Phe Ser Gly Arg Asp Leu Ile Met Leu Val
 85 90 95
 Gly Gly Leu Phe Leu Leu Phe Lys Ala Thr Thr Glu Leu His Glu Arg
 100 105 110
 Leu Glu Asn Arg Gln His Asp Asp Gly His Gly Lys Gly Tyr Ala Ser
 115 120 125
 Phe Trp Val Val Val Leu Gln Ile Val Val Leu Asp Ala Val Phe Ser

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Leu Asp Ala Val Ile Thr Ala Val Gly Met Val Asn His Leu Pro Val | | |
| 145 | 150 | 155 |
| Met Met Ala Ala Val Ile Ala Met Ala Val Met Leu Leu Ala Ser | | |
| | 165 | 170 |
| Lys Pro Leu Thr Arg Phe Val Asn Gln His Pro Thr Val Val Val Leu | | |
| | 180 | 185 |
| Cys Leu Ser Phe Leu Leu Met Ile Gly Leu Ser Leu Val Ala Glu Gly | | |
| | 195 | 200 |
| Phe Gly Phe His Ile Pro Lys Gly Tyr Leu Tyr Ala Ala Ile Gly Phe | | |
| | 210 | 215 |
| Ser Ile Leu Ile Glu Leu Phe Asn Gln Ile Ala Arg Arg Asn Phe Ile | | |
| 225 | 230 | 235 |
| Lys Gln Gln Ser Asn Gln Pro Leu Arg Ala Arg Thr Ala Asp Ala Ile | | |
| | 245 | 250 |
| Leu Arg Leu Met Gly Gly Arg Arg Gln Val Asn Val Gln Ala Asp Asn | | |
| | 260 | 265 |
| Glu Asn Arg Asn Pro Val Pro Val Pro Glu Gly Ala Phe Val Glu Glu | | |
| | 275 | 280 |
| Glu Arg Tyr Met Ile Asn Gly Val Leu Ser Leu Ala Ser Arg Ser Leu | | |
| | 290 | 295 |
| Arg Gly Ile Met Thr Pro Arg Gly Glu Ile Ser Trp Val Asp Ala Asn | | |
| 305 | 310 | 315 |
| Leu Ser Val Asp Glu Ile Arg Gln Gln Leu Leu Ser Ser Pro His Ser | | |
| | 325 | 330 |
| Leu Phe Pro Val Cys Arg Gly Glu Leu Asp Glu Ile Ile Gly Val Val | | |
| | 340 | 345 |
| Arg Ala Lys Glu Met Leu Val Ala Leu Glu Glu Gly Val Asn Val Glu | | |
| | 355 | 360 |
| Ala Val Ala Ala Ala Ser Pro Ala Ile Val Val Pro Glu Thr Leu Asp | | |
| | 370 | 375 |
| Pro Ile Asn Leu Leu Gly Val Leu Arg Arg Ala Arg Gly Ser Phe Val | | |
| 385 | 390 | 395 |
| Ile Val Thr Asn Glu Phe Gly Val Val Gln Gly Leu Val Thr Pro Leu | | |
| | 405 | 410 |
| Asp Val Leu Glu Ala Ile Ala Gly Glu Phe Pro Asp Ala Asp Glu Thr | | |
| | 420 | 425 |
| Pro Glu Ile Val Ala Asp Gly Asp Gly Trp Leu Val Lys Gly Thr Thr | | |
| | 435 | 440 |
| Asp Leu His Ala Leu Ser His Thr Leu Gly Val Glu Asn Val Val Asn | | |
| | 450 | 455 |
| Asp Asp Glu Asp Ile Ala Thr Val Ala Gly Leu Val Ile Ser Val Asn | | |
| 465 | 470 | 475 |
| Gly Gln Ile Pro Arg Ile Gly Asp Val Leu Glu Leu Pro Pro Leu Gln | | |
| | 485 | 490 |
| Ile Thr Ile Val Glu Ala Asn Asp Tyr Arg Val Asp Met Val Arg Ile | | |
| | 500 | 505 |
| Val Lys Glu His Ser Ala His Asp Glu Glu Glu | | |
| | 515 | 520 |

<210> 7224

<211> 402

<212> PRT

<213> Enterobacter cloacae

<400> 7224

| |
|---|
| Gly Leu Ser Phe Thr Leu Ile Ala Gln Thr Pro Val Lys Pro Ala Phe |
| 1 |
| |
| Phe Met Gly Ala Asn Lys Arg Glu Ser Asp Leu Asn Tyr Gln Met Ile |
| 20 |
| |
| Thr Thr Asn Asp Glu Leu Ala Ser Leu Cys Glu Val Thr Arg Glu Phe |


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<210> 7225
<211> 65
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Leu | Thr | Met | Phe | Ala | Gly | Leu | Pro | Ser | Leu | Ser | His | Asp | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Gln | Lys | Ala | Val | Glu | Arg | Ile | Gln | Glu | Leu | Met | Ser | Gln | Gly | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ser | Gly | Gln | Ala | Ile | Ser | Gln | Val | Ala | Glu | Glu | Leu | Arg | Ala | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Thr | Gly | Glu | Arg | Ile | Val | Ala | Arg | Phe | Glu | Asp | Glu | Asp | Glu | Glu |

50

55

60

65

<210> 7226

<211> 640

<212> PRT

<213> Enterobacter cloacae

<400> 7226

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asn | Thr | Val | Ala | Asp | Asp | Phe | Ser | Pro | Glu | Gly | Gln | Leu | Ala | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ile | Pro | Gly | Phe | Lys | Pro | Arg | Glu | Pro | Gln | Arg | Gln | Met | Ala | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Val | Ala | His | Ala | Ile | Asp | Lys | Ala | Gln | Pro | Leu | Val | Val | Glu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Thr | Gly | Thr | Gly | Lys | Thr | Tyr | Ala | Tyr | Leu | Ala | Pro | Ala | Leu | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Lys | Lys | Lys | Val | Ile | Ile | Ser | Thr | Gly | Ser | Lys | Ala | Leu | Gln | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Leu | Tyr | Ser | Arg | Asp | Leu | Pro | Thr | Val | Ala | Lys | Ala | Leu | Lys | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Gly | Arg | Leu | Ala | Leu | Leu | Lys | Gly | Arg | Ser | Asn | Tyr | Leu | Cys | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Arg | Leu | Glu | Gln | Gln | Ala | Leu | Ala | Gly | Gly | Asp | Leu | Pro | Val | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Ser | Asp | Val | Ile | Val | Leu | Arg | Ala | Trp | Ala | Asn | Gln | Thr | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Gly | Asp | Ile | Ser | Thr | Cys | Ala | Ser | Val | Pro | Glu | Asp | Ser | Pro | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Trp | Pro | Leu | Val | Thr | Ser | Thr | Asn | Asp | Asn | Cys | Leu | Gly | Ser | Asp | Cys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Leu | Tyr | Lys | Asp | Cys | Phe | Val | Val | Lys | Ala | Arg | Lys | Thr | Ala | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Ala | Asp | Val | Val | Val | Val | Asn | His | His | Leu | Phe | Leu | Ala | Asp | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Val | Lys | Asp | Ser | Gly | Phe | Gly | Glu | Leu | Ile | Pro | Glu | Ala | Glu | Val |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Met | Ile | Phe | Asp | Glu | Ala | His | Gln | Leu | Pro | Asp | Ile | Ala | Ser | Gln | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Gly | Gln | Ser | Leu | Ser | Ser | Arg | Gln | Leu | Gln | Asp | Leu | Ala | Lys | Asp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Thr | Ile | Ala | Tyr | Arg | Thr | Glu | Leu | Lys | Asp | Thr | Gln | Gln | Leu | Gln |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Lys | Cys | Ala | Asp | Arg | Leu | Ala | Gln | Cys | Ala | Gln | Asp | Phe | Arg | Leu | Gln |
| | | 275 | | | | | 280 | | | | 285 | | | | |
| Leu | Gly | Glu | Pro | Gly | Tyr | Arg | Gly | Asn | Leu | Arg | Glu | Leu | Leu | Ala | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Asn | Ile | Gln | Arg | Ala | Leu | Leu | Leu | Leu | Asp | Asp | Ala | Leu | Glu | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Cys | Tyr | Asp | Val | Ala | Lys | Leu | Ser | Leu | Gly | Arg | Ser | Ala | Leu | Leu | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Ala | Phe | Glu | Arg | Ala | Thr | Leu | Tyr | Arg | Gly | Arg | Leu | Lys | Arg | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Glu | Ile | Asn | Gln | Pro | Gly | Tyr | Ser | Tyr | Trp | Tyr | Glu | Cys | Thr | Ser |
| | | 355 | | | | 360 | | | | | | 365 | | | |
| Arg | His | Phe | Thr | Leu | Ala | Leu | Thr | Pro | Leu | Thr | Val | Ala | Asp | Lys | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Lys | Glu | Val | Met | Ala | Gln | Lys | Pro | Gly | Thr | Trp | Val | Phe | Thr | Ser | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Thr | Leu | Ser | Val | Asn | Asp | Asp | Leu | His | His | Phe | Thr | Glu | Arg | Leu | Gly |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Ile | Glu | Gln | Ala | Glu | Ser | Leu | Leu | Leu | Pro | Ser | Pro | Phe | Asp | Tyr | Glu | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Arg | Gln | Ala | Leu | Leu | Cys | Val | Pro | Arg | Asn | Leu | Pro | Leu | Pro | Asn | Gln | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Pro | Gly | Ala | Ala | Arg | His | Leu | Ala | Ala | Met | Leu | Lys | Pro | Met | Ile | Glu | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Ala | Asn | Asn | Gly | Arg | Cys | Phe | Met | Leu | Cys | Thr | Ser | His | Ala | Met | Met | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Arg | Asp | Leu | Ala | Glu | Gln | Phe | Arg | Ala | Thr | Met | Thr | Leu | Pro | Val | Leu | | |
| | | | 485 | | | | | | 490 | | | | | | 495 | | |
| Leu | Gln | Gly | Glu | Thr | Ser | Lys | Gly | Gln | Leu | Leu | Gln | Gln | Phe | Val | Ser | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Ala | Gly | Asn | Ala | Leu | Leu | Val | Ala | Thr | Ser | Ser | Phe | Trp | Glu | Gly | Val | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Asp | Val | Arg | Gly | Asp | Thr | Leu | Ser | Leu | Val | Ile | Ile | Asp | Lys | Leu | Pro | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Phe | Thr | Ser | Pro | Asp | Asp | Pro | Leu | Leu | Lys | Ala | Arg | Met | Glu | Asp | Cys | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Arg | Leu | Arg | Gly | Gly | Asp | Pro | Phe | Asp | Asp | Val | Gln | Leu | Pro | Asp | Ala | | |
| | | | 565 | | | | | | 570 | | | | | | 575 | | |
| Val | Ile | Thr | Leu | Lys | Gln | Gly | Val | Gly | Arg | Leu | Ile | Arg | Asp | Val | Thr | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |
| Asp | Arg | Gly | Val | Leu | Val | Ile | Cys | Asp | Asn | Arg | Leu | Val | Met | Arg | Pro | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Tyr | Gly | Ala | Thr | Phe | Leu | Ala | Ser | Leu | Pro | Pro | Ala | Pro | Arg | Thr | Arg | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Asp | Ile | Lys | Arg | Ala | Val | Arg | Phe | Leu | Ala | Asn | Pro | Thr | Ala | Glu | | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | |

<210> 7227

<211> 241

<212> PRT

<213> Enterobacter cloacae

<400> 7227

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Leu | Thr | Ile | Ala | Arg | Ala | Arg | Arg | Leu | Met | Arg | Ile | Leu | Ala | Ile | Asp | | |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | | | |
| Thr | Ala | Thr | Glu | Ala | Cys | Ser | Val | Ala | Leu | Trp | Asn | Asp | Gly | Thr | Ile | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Phe | Ala | His | Phe | Glu | Glu | Cys | Pro | Arg | Glu | His | Thr | Gln | Arg | Ile | Leu | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Pro | Leu | Val | Lys | Thr | Ile | Leu | Thr | Glu | Gly | Asn | Thr | Ala | Leu | Thr | Asp | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Leu | Asp | Ala | Leu | Ala | Tyr | Gly | Arg | Gly | Pro | Gly | Ser | Phe | Thr | Gly | Val | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Arg | Ile | Gly | Ile | Gly | Ile | Ala | Gln | Gly | Leu | Ala | Leu | Gly | Ala | Asp | Leu | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| Pro | Met | Ile | Gly | Val | Ser | Thr | Leu | Ala | Thr | Met | Ala | Gln | Gly | Ala | Trp | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Arg | Met | Thr | Gly | Ala | Thr | Arg | Val | Leu | Ala | Ala | Ile | Asp | Ala | Arg | Met | | |
| | | | 115 | | | | | 120 | | | | | 125 | | | | |
| Gly | Glu | Val | Tyr | Trp | Ala | Glu | Tyr | Thr | Arg | Asp | Glu | Asn | Gly | Val | Trp | | |
| | | | 130 | | | | 135 | | | | | 140 | | | | | |
| His | Gly | Glu | Glu | Thr | Glu | Ala | Val | Leu | Lys | Pro | Glu | Ala | Val | Thr | Gly | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Arg | Leu | Lys | Gln | Leu | Ser | Gly | Glu | Trp | Ala | Thr | Val | Gly | Thr | Gly | Trp | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | |
| Ala | Ala | Trp | Pro | Glu | Met | Ala | Lys | Asp | Thr | Gly | Leu | Thr | Leu | Val | Asp | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Gly | Asn | Met | Leu | Leu | Pro | Ala | Ala | Glu | Asp | Met | Leu | Pro | Ile | Ala | Cys | | |


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<210> 7228
<211> 585
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Tyr 1 | Asn | Val | Asn | Lys 5 | Leu | Phe | Ile | Ile | Gly 10 | Ala | Val | Met | Thr | Thr 15 | Asn |
| Thr | His | Phe | Arg 20 | Gly | Asp | Ala | Leu | Lys 25 | Lys | Val | Trp | Leu | Asn 30 | Arg | Tyr |
| Pro | Ala | Asp 35 | Val | Pro | Ala | Glu | Ile 40 | Asn | Pro | Asp | Arg | Tyr 45 | Gln | Ser | Leu |
| Ile | Glu 50 | Leu | Phe | Glu | His | Ser 55 | Val | Arg | Arg | Tyr | Ala 60 | Asp | Gln | Pro | Ala |
| Phe 65 | Val | Asn | Met | Gly | Glu 70 | Val | Met | Thr | Phe | Arg 75 | Lys | Leu | Glu | Glu | Arg 80 |
| Ser | Arg | Ala | Phe 85 | Ala | Ala | Tyr | Leu | Gln | Glu 90 | Gly | Leu | Gly | Leu | Gln 95 | Lys |
| Gly | Asp | Arg | Val 100 | Ala | Leu | Met | Met | Pro 105 | Asn | Leu | Leu | Gln | Tyr 110 | Pro | Val |
| Ala | Leu | Phe 115 | Gly | Ile | Leu | Arg | Ala 120 | Gly | Met | Ile | Val | Val 125 | Asn | Val | Asn |
| Pro | Leu 130 | Tyr | Thr | Pro | Arg | Glu 135 | Leu | Glu | His | Gln | Leu 140 | Asn | Asp | Ser | Gly |
| Ala 145 | Ala | Ala | Ile | Val | Ile 150 | Val | Ser | Asn | Phe | Ala 155 | His | Thr | Leu | Glu | Lys 160 |
| Val | Val | Glu | Lys 165 | Thr | Gln | Val | Lys | His | Val 170 | Ile | Leu | Thr | Arg | Met 175 | Gly |
| Asp | Gln | Leu 180 | Ser | Thr | Ala | Lys | Gly 185 | Thr | Leu | Val | Asn | Phe 190 | Val | Val | Lys |
| Tyr | Val 195 | Lys | Arg | Leu | Val | Pro | Lys 200 | Tyr | His | Leu | Pro 205 | Asp | Ala | Ile | Ser |
| Phe | Arg 210 | Arg | Ala | Leu | His | Ala 215 | Gly | Tyr | Arg | Met | Gln 220 | Tyr | Val | Lys | Pro |
| Glu 225 | Ile | Val | Ser | Glu | Asp 230 | Leu | Ala | Phe | Leu | Gln 235 | Tyr | Thr | Gly | Gly | Thr 240 |
| Thr | Gly 245 | Val | Ala | Lys | Gly | Ala | Met | Leu | Thr 250 | His | Arg | Asn | Met | Leu 255 | Ala |
| Asn | Leu | Glu 260 | Gln | Val | Asn | Ala | Thr | Tyr 265 | Gly | Pro | Leu | Leu | His 270 | Pro | Gly |
| Lys | Glu 275 | Leu | Val | Ile | Thr | Ala | Leu 280 | Pro | Leu | Tyr | His 285 | Ile | Phe | Ala | Leu |
| Thr | Met 290 | Asn | Cys | Leu | Leu | Phe 295 | Ile | Glu | Leu | Gly 300 | Gly | Gln | Asn | Val | Leu |
| Ile 305 | Thr | Asn | Pro | Arg | Asp 310 | Ile | Pro | Gly | Leu | Val 315 | Lys | Glu | Leu | Ala | Lys 320 |
| Tyr | Pro | Phe 325 | Thr | Ala | Met | Thr | Gly | Val 330 | Asn | Thr | Leu | Phe | Asn 335 | Ala | Leu |
| Leu | Asn | Asn 340 | Lys | Glu | Phe | Gln | Gln | Leu 345 | Asp | Phe | Ser | Thr | Leu 350 | His | Leu |
| Ser | Ala 355 | Gly | Gly | Gly | Met | Pro | Val 360 | Gln | Gln | Ala | Val 365 | Ala | Glu | Arg | Trp |
| Val | Lys | Leu | Thr | Gly | Gln | Tyr | Leu | Leu | Glu | Gly | Tyr | Gly | Leu | Thr | Glu |

| | | | | |
|---------------------|-------------------------|-------------------------|--|-----|
| 370 | | 375 | | 380 |
| Cys Ala Pro Leu Val | Ser Val Asn Pro His Asp | Ile Asp Tyr His Ser | | |
| 385 | 390 | 395 | | 400 |
| Gly Ser Ile Gly Leu | Pro Val Pro Ser Thr | Glu Ala Lys Leu Val Asp | | |
| | 405 | 410 | | 415 |
| Asp Glu Asp Asn Glu | Val Pro His Gly Glu | Pro Gly Glu Leu Cys Val | | |
| | 420 | 425 | | 430 |
| Arg Gly Pro Gln Val | Met Leu Gly Tyr Trp | Gln Arg Pro Asp Ala Thr | | |
| | 435 | 440 | | 445 |
| Asp Glu Ile Ile Lys | Asp Gly Trp Leu His Thr | Gly Asp Ile Ala Val | | |
| | 450 | 455 | | 460 |
| Met Asp Asp Glu Gly | Phe Leu Arg Ile Val | Asp Arg Lys Lys Asp Met | | |
| 465 | 470 | 475 | | 480 |
| Ile Leu Val Ser Gly | Phe Asn Val Tyr Pro | Asn Glu Ile Glu Asp Val | | |
| | 485 | 490 | | 495 |
| Val Met Gln His Ser | Gly Val Leu Glu Val | Ala Ala Val Gly Val Pro | | |
| | 500 | 505 | | 510 |
| Ser Gly Ser Ser Gly | Glu Ala Val Lys Ile | Phe Val Val Lys Lys Asp | | |
| | 515 | 520 | | 525 |
| Pro Ser Leu Thr Glu | Asp Ala Leu Ile Thr | Phe Cys Arg Arg Gln Leu | | |
| | 530 | 535 | | 540 |
| Thr Gly Tyr Lys Val | Pro Lys Leu Val Glu | Phe Arg Asp Glu Leu Pro | | |
| 545 | 550 | 555 | | 560 |
| Lys Ser Asn Val Gly | Lys Ile Leu Arg Arg | Glu Leu Arg Asp Glu Ala | | |
| | 565 | 570 | | 575 |
| Arg Ala Lys Val Asp | Asn Lys Ala | | | |
| | 580 | 585 | | |

<210> 7229

<211> 90

<212> PRT

<213> Enterobacter cloacae

<400> 7229

| | | |
|---------------------|---------------------|-----------------------------|
| Val Met Ala Leu Leu | Asp Phe Phe Leu Ser | Arg Lys Lys Ser Thr Ala |
| 1 | 5 | 10 |
| Asn Ile Ala Lys Glu | Arg Leu Gln Ile Ile | Val Ala Glu Arg Arg Arg |
| | 20 | 25 |
| Ser Asp Ala Glu Pro | His Tyr Leu Pro | Gln Leu Arg Lys Asp Ile Leu |
| | 35 | 40 |
| Glu Val Ile Cys Lys | Tyr Val Gln Ile Asp | Pro Glu Met Val Thr Val |
| | 50 | 55 |
| Gln Leu Glu Gln Lys | Asp Gly Asp Ile Ser | Ile Leu Glu Leu Asn Val |
| 65 | 70 | 75 |
| Thr Leu Pro Glu Ala | Glu Glu Ser Arg | |
| | 85 | 90 |

<210> 7230

<211> 322

<212> PRT

<213> Enterobacter cloacae

<400> 7230

| | | |
|---------------------|---------------------|-----------------------------|
| Gln Val Thr Ile Ala | Ile Val Ile Gly Thr | His Gly Trp Ala Ala Glu |
| 1 | 5 | 10 |
| Gln Leu Leu Lys Thr | Ala Glu Met Leu | Leu Gly Glu Gln Glu Asn Val |
| | 20 | 25 |
| Gly Trp Ile Asp Phe | Val Pro Gly Glu | Asn Ala Glu Thr Leu Ile Glu |
| | 35 | 40 |
| Lys Tyr Thr Ala Gln | Leu Glu Lys Leu | Asp Thr Ser Lys Gly Val Leu |
| | 50 | 55 |
| | | 60 |

Phe Leu Val Asp Thr Trp Gly Gly Ser Pro Phe Asn Ala Ala Ser Arg
 65 70 75 80
 Ile Val Val Asp Lys Glu His Tyr Glu Val Val Ala Gly Val Asn Ile
 85 90 95
 Pro Met Leu Val Glu Thr Phe Met Ala Arg Asp Asp Asn Pro Gly Phe
 100 105 110
 Asp Glu Leu Val Ala Leu Ala Val Glu Thr Gly Arg Glu Gly Val Lys
 115 120 125
 Ala Leu Lys Ala Gln Pro Val Glu Lys Pro Ala Pro Ala Pro Ala Ala
 130 135 140
 Pro Lys Ala Val Ala Pro Ala Lys Pro Met Gly Pro Asn Asp Tyr Met
 145 150 155 160
 Val Ile Gly Leu Ala Arg Ile Asp Asp Arg Leu Ile His Gly Gln Val
 165 170 175
 Ala Thr Arg Trp Thr Lys Glu Thr Asn Val Gln Arg Ile Ile Val Val
 180 185 190
 Ser Asp Glu Val Ala Ala Asp Thr Val Arg Lys Thr Leu Leu Thr Gln
 195 200 205
 Val Ala Pro Pro Gly Val Thr Ala His Val Val Asp Val Ala Lys Met
 210 215 220
 Ile Arg Val Tyr Asn Asn Pro Lys Tyr Ala Gly Glu Arg Val Met Leu
 225 230 235 240
 Leu Phe Thr Asn Pro Thr Asp Val Glu Arg Ile Val Glu Gly Gly Val
 245 250 255
 Lys Ile Thr Ser Val Asn Ile Gly Gly Met Ala Phe Arg Gln Gly Lys
 260 265 270
 Thr Gln Val Asn Asn Ala Ile Ser Val Asp Ala Lys Asp Ile Glu Ala
 275 280 285
 Phe Asn Lys Leu Asn Ala Arg Gly Ile Glu Leu Glu Ala Arg Lys Val
 290 295 300
 Ser Thr Asp Gln Lys Leu Lys Met Met Asp Leu Ile Gly Lys Val Gly
 305 310 315 320
 Lys

<210> 7231

<211> 205

<212> PRT

<213> Enterobacter cloacae

<400> 7231

Ser Glu Ser Tyr Pro Glu Thr Thr Gly Glu Leu Thr Val Lys Lys Asp
 1 5 10 15
 Asn Leu Thr Leu Asp Asp Phe Leu Ser Arg Phe Gln Leu Leu Arg Pro
 20 25 30
 Gln Val Ser Arg Ala Thr Leu Asn Gln Arg Gln Ala Ala Val Leu Ile
 35 40 45
 Pro Val Val Arg Arg Glu Gln Pro Gly Leu Leu Leu Thr Gln Arg Ser
 50 55 60
 Pro His Met Arg Lys His Ala Gly Gln Val Ala Phe Pro Gly Gly Ala
 65 70 75 80
 Val Asp Ser Thr Asp Ala Ser Leu Ile Ala Ala Ala Leu Arg Glu Ala
 85 90 95
 His Glu Glu Val Ala Ile Pro Pro Glu Thr Val Glu Val Ile Gly Val
 100 105 110
 Leu Pro Pro Val Asp Ser Val Thr Gly Phe Gln Val Thr Pro Val Val
 115 120 125
 Gly Ile Ile Pro Pro Asp Leu Gln Tyr His Ala Ser Val Asp Glu Val
 130 135 140
 Ser Ala Val Phe Glu Met Pro Leu Glu Glu Ala Leu Arg Leu Gly Arg
 145 150 155 160

Tyr His Pro Leu Asp Ile His Arg Arg Gly His Asp His Arg Val Trp
 165 170 175
 Leu Ser Trp Tyr Gln His Tyr Phe Val Trp Gly Met Thr Ala Gly Ile
 180 185 190
 Ile Arg Glu Leu Ala Leu Gln Ile Gly Leu Lys Pro
 195 200 205

<210> 7232

<211> 168

<212> PRT

<213> Enterobacter cloacae

<400> 7232

Pro Ser Gly Glu Lys Ser Ser Ala Thr Val Phe Ser His Cys Ile Phe
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 20 25 30
 Asp Asp Gly Gly Thr Leu Trp Gln Ser Cys Arg Leu Thr Thr Lys Asp
 35 40 45
 Asn Glu Asp Thr Phe Met Thr Ile Thr Arg Ile Asp Ala Glu Ala Arg
 50 55 60
 Trp Ser Asp Val Val Ile His Asn Gln Thr Leu Tyr Tyr Thr Gly Val
 65 70 75 80
 Pro Ala Asn Leu Asp Ala Asp Ala Phe Glu Gln Thr Ala Asn Thr Leu
 85 90 95
 Ala Gln Ile Asp Ala Val Leu Glu Lys Gln Gly Ser Asp Lys Ser Arg
 100 105 110
 Ile Leu Asp Ala Thr Ile Phe Leu Ala Asn Lys Asp Asp Phe Ala Ala
 115 120 125
 Met Asn Lys Ala Trp Asp Ala Trp Val Val Ala Gly His Ala Pro Val
 130 135 140
 Arg Cys Thr Val Gln Ala Thr Leu Met Lys Pro Glu Tyr Lys Val Glu
 145 150 155 160
 Ile Lys Ile Ile Ala Ala Val
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<210> 7233

<211> 460

<212> PRT

<213> Enterobacter cloacae

<400> 7233

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 Asn Met Arg Phe Pro Thr Val Met Thr Leu Pro Trp Arg Ala Asp-Ala
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 Ala Glu Phe Trp Phe Ala Arg Leu Ser His Leu Pro Phe Ala Met Leu
 35 40 45
 Leu His Ser Gly His Ala Asp His Pro Tyr Ser Arg Phe Asp Ile Leu
 50 55 60
 Val Ala Asp Pro Val Lys Thr Leu Thr Thr Asp Ala Leu Ser Pro Thr
 65 70 75 80
 Asp Asp Pro Leu Met Arg Leu Gln Asn Glu Ile Asp Ala Leu Gly Leu
 85 90 95
 Thr Ala Thr Pro Asp Pro Asp Leu Pro Phe Gln Gly Gly Ala Leu Gly
 100 105 110
 Leu Phe Gly Tyr Asp Leu Gly Arg Phe Glu Lys Leu Pro Glu His
 115 120 125
 Ala Gln Ala Asp Ile Ser Leu Pro Asp Met Ala Val Gly Leu Tyr Asp
 130 135 140
 Trp Ala Leu Ile Val Asp His Arg Lys Gln Thr Val Ser Leu Leu Ser

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| His | Arg | Asp | Val | Gln | Ala | Arg | Leu | Ala | Trp | Leu | Glu | Ala | Gln | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Ala | Ala | Pro | Glu | His | Phe | Met | Leu | Thr | Ser | Gly | Trp | Arg | Ser | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | |
| Ser | Ala | Glu | Glu | Tyr | Ala | Glu | Lys | Phe | Ser | Arg | Val | Gln | Ala | Tyr |
| | | 195 | | | | | 200 | | | | 205 | | | |
| His | Ser | Gly | Asp | Cys | Tyr | Gln | Val | Asn | Leu | Ala | Gln | Arg | Phe | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | |
| Ala | Tyr | Lys | Gly | Asp | Glu | Trp | Gln | Ala | Phe | Thr | Arg | Leu | Asn | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Asn | Lys | Ala | Pro | Phe | Ser | Ala | Phe | Leu | Arg | Phe | Glu | His | Gly | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Leu | Ser | Leu | Ser | Pro | Glu | Arg | Phe | Ile | His | Leu | Ala | Asp | Gly | Met |
| | | | 260 | | | | | 265 | | | | | 270 | |
| Gln | Thr | Arg | Pro | Ile | Lys | Gly | Thr | Leu | Pro | Arg | Leu | Ala | Asn | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | Asp |
| Ala | Asp | Arg | Gln | Gln | Ala | Glu | Thr | Leu | Ala | Ala | Ser | Pro | Lys | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | |
| Ala | Glu | Asn | Leu | Met | Ile | Val | Asp | Leu | Met | Arg | Asn | Asp | Ile | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | Arg |
| Val | Ala | Glu | Pro | Gly | Ser | Val | Arg | Val | Pro | Glu | Leu | Phe | Val | Val |
| | | | | 325 | | | | | 330 | | | | | Glu |
| Pro | Phe | Pro | Ala | Val | His | His | Leu | Val | Ser | Thr | Ile | Thr | Ala | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | |
| Pro | Ala | Ser | Arg | Thr | Ala | Cys | Asp | Leu | Leu | Arg | Ala | Ala | Phe | Pro |
| | | 355 | | | | | 360 | | | | | 365 | | Gly |
| Gly | Ser | Ile | Thr | Gly | Ala | Pro | Lys | Val | Arg | Ala | Met | Glu | Ile | Ile |
| | 370 | | | | | 375 | | | | | 380 | | | Asp |
| Glu | Leu | Glu | Pro | His | Arg | Arg | Asn | Ala | Trp | Cys | Gly | Ser | Ile | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | Tyr |
| Val | Ser | Leu | Cys | Gly | Thr | Met | Asp | Thr | Ser | Ile | Thr | Ile | Arg | Thr |
| | | | 405 | | | | | | 410 | | | | | Leu |
| Thr | Ala | Cys | Asp | Gly | Asn | Leu | Tyr | Cys | Ser | Ala | Gly | Gly | Gly | Ile |
| | | | 420 | | | | | 425 | | | | | 430 | Val |
| Ala | Asp | Ser | Gln | Val | Glu | Ala | Glu | Tyr | Gln | Glu | Thr | Phe | Asp | Lys |
| | 435 | | | | | | 440 | | | | | 445 | | Val |
| Asn | Arg | Ile | Leu | Lys | Gln | Leu | Glu | Asn | Ser | Arg | | | | |
| | 450 | | | | | 455 | | | | | 460 | | | |

<210> 7234

<211> 469

<212> PRT

<213> Enterobacter cloacae

<400> 7234

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| His | Arg | Tyr | Trp | Asn | Pro | Ser | Asn | Pro | Val | Arg | Ser | Val | Lys | Val | Ile |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Ser | Ile | Phe | Asp | Met | Phe | Lys | Val | Gly | Ile | Gly | Pro | Ser | Ser | Ser | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Val | Gly | Pro | Met | Lys | Ala | Gly | Lys | Gln | Phe | Val | Asp | Asp | Leu | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Lys | Gly | Leu | Leu | Glu | Ser | Val | Thr | Arg | Val | Ala | Val | Asp | Val | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ser | Leu | Ser | Leu | Thr | Gly | Lys | Gly | His | His | Thr | Asp | Ile | Ala | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Met | Gly | Leu | Ala | Gly | Asn | Met | Pro | Asp | Thr | Val | Asp | Ile | Asp | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ile | Pro | Ala | Phe | Ile | Arg | Asp | Val | Glu | Thr | Arg | Gly | Arg | Leu | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Asn | Gly | Gln | His | Glu | Val | Asp | Phe | Pro | Gln | Asp | Asp | Gly | Met | Arg |

115 120 125
 Phe Arg Ser Asp Asn Leu Pro Leu His Glu Asn Gly Met Thr Ile His
 130 135 140
 Ala Trp Ser Gly Glu Lys Glu Ile Tyr Ser Lys Thr Tyr Tyr Ser Ile
 145 150 155 160
 Gly Gly Gly Phe Ile Val Asp Glu Glu His Phe Gly Lys Glu Ser Ala
 165 170 175
 Gly Asp Val Asn Val Pro Tyr Pro Phe Lys Ser Ala Thr Glu Met Leu
 180 185 190
 Gly Tyr Cys Lys Glu Thr Gly Leu Ser Leu Ser Gly Met Val Met Gln
 195 200 205
 Asn Glu Leu Ala Leu His Ser Lys Lys Glu Ile Glu Asp Tyr Phe Ala
 210 215 220
 Asn Val Trp Gln Thr Met Arg Ala Cys Ile Asp Arg Gly Met Asn Thr
 225 230 235 240
 Glu Gly Val Leu Pro Gly Pro Leu Arg Val Pro Arg Arg Ala Ser Ala
 245 250 255
 Leu Arg Arg Met Leu Val Thr Thr Asp Lys Phe Ser Asn Asp Pro Met
 260 265 270
 Asn Val Val Asp Trp Val Asn Met Phe Ala Leu Ala Val Asn Glu Glu
 275 280 285
 Asn Ala Ala Gly Gly Arg Val Val Thr Ala Pro Thr Asn Gly Ala Cys
 290 295 300
 Gly Ile Val Pro Ala Val Leu Ala Tyr Tyr Asp His Phe Ile Glu Pro
 305 310 315 320
 Val Thr Pro Asp Ile Tyr Ile Arg Tyr Phe Leu Ala Ala Gly Ala Ile
 325 330 335
 Gly Ala Leu Tyr Lys Met Asn Ala Ser Ile Ser Gly Ala Glu Val Gly
 340 345 350
 Cys Gln Gly Glu Val Gly Val Ala Cys Ser Met Ala Ala Gly Leu
 355 360 365
 Ala Glu Leu Leu Gly Ala Ser Pro Glu Gln Val Cys Val Ala Ala Glu
 370 375 380
 Ile Gly Met Glu His Asn Leu Gly Leu Thr Cys Asp Pro Val Ala Gly
 385 390 395 400
 Gln Val Gln Val Pro Cys Ile Glu Arg Asn Ala Ile Ala Ser Val Lys
 405 410 415
 Ala Ile Asn Ala Ser Arg Met Ala Met Arg Arg Thr Ser Glu Pro Arg
 420 425 430
 Val Ser Leu Asp Lys Val Ile Glu Thr Met Tyr Glu Thr Gly Lys Asp
 435 440 445
 Met Asn Ala Lys Tyr Arg Glu Thr Ser Arg Gly Gly Leu Ala Ile Lys
 450 455 460
 Val Gln Cys Asp
 465

<210> 7235

<211> 576

<212> PRT

<213> Enterobacter cloacae

<400> 7235

Ala Phe Leu Ser Pro Ile Cys Asn Arg Trp Ala Asn Phe Pro Leu Ser
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 Ser Arg Arg Phe Thr Tyr Ser Pro Leu His Cys His Cys Cys Val Trp
 20 25 30
 Leu Phe Trp Pro Val Leu Asn Arg Arg Pro Phe Met Gln Thr Ala Gln
 35 40 45
 Thr Ile Ile Lys Asp Tyr Arg Arg Lys Arg Val Ile Val Cys Val Thr
 50 55 60
 Val Ala Leu Val Thr Leu Val Leu Thr Leu Gly Ile Arg Phe Ile Ser

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 65 | | | | | 70 | | | | 75 | | | | 80 | | | |
| Gln | Arg | Asn | Ile | Asn | Gln | Asp | Arg | Ile | His | Asp | Phe | Thr | His | His | Thr | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Arg | Ala | Leu | Asp | Lys | Val | Leu | Leu | Ser | Leu | Glu | Ala | Gln | Arg | Glu | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Thr | Leu | Leu | Ser | Leu | Val | Gly | Ile | Pro | Cys | Ser | Glu | Ala | Asn | Leu | Ile | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Leu | Arg | Lys | Gln | Ala | Ala | Ile | Leu | Gln | Thr | Val | Arg | Ser | Ile | Ala | Leu | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ile | Lys | Asp | Gly | Ile | Leu | Tyr | Cys | Ser | Ser | Val | Phe | Gly | Ser | Arg | Asn | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Val | Pro | Val | Ser | Glu | Phe | Val | Pro | Glu | Leu | Pro | Val | Ser | Glu | Ser | Arg | |
| | | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Leu | Leu | Ser | Thr | Asp | Arg | Trp | Leu | Val | Lys | Gly | Ser | Pro | Val | Leu | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Ile | Gln | Trp | Ser | Pro | Val | Ala | Gly | Asp | Gly | Asn | Asp | Gly | Val | Met | Glu | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Val | Val | Asn | Ile | Asp | Leu | Ile | Thr | Lys | Met | Ile | Leu | Glu | Pro | Gln | Arg | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Pro | Gln | Ile | Thr | Asp | Val | Val | Leu | Arg | Val | Gly | Asp | Asn | Phe | Leu | Arg | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Asp | Gly | Gln | Gln | Val | Thr | Thr | Thr | Pro | Thr | Phe | Asp | Glu | Asn | Ala | Ser | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Leu | Leu | Glu | Gln | Ser | Ser | Gln | His | Tyr | Pro | Phe | Ser | Val | Thr | Val | Ser | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Gly | Pro | Gly | Pro | Gly | Glu | Met | Ala | Leu | Lys | Asn | Leu | Pro | Thr | Gln | Leu | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Pro | Leu | Ala | Leu | Met | Leu | Ser | Leu | Leu | Met | Gly | Tyr | Ile | Ala | Trp | Leu | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Ala | Thr | Ala | Arg | Arg | Ile | Ser | Phe | Thr | Trp | Glu | Ile | Asn | Met | Gly | Ile | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Ala | Ala | Arg | Glu | Phe | Glu | Leu | Phe | Cys | Gln | Pro | Leu | Val | Asn | Ala | Arg | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Thr | Arg | Glu | Cys | Val | Gly | Val | Glu | Ile | Leu | Leu | Arg | Trp | Asn | Asn | Pro | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Arg | Gln | Gly | Trp | Ile | Ser | Pro | Asp | Val | Phe | Ile | Pro | Leu | Ala | Glu | Glu | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| His | Asn | Leu | Ile | Val | Pro | Leu | Thr | Arg | Tyr | Val | Ile | Ser | Glu | Thr | Val | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Arg | Gln | Ile | Gly | Tyr | Phe | Pro | Ala | Ser | Arg | Asp | Phe | His | Ile | Gly | Ile | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Asn | Val | Ala | Ala | Ser | His | Phe | Arg | Arg | Ala | Ala | Leu | Ile | Gln | Asp | Leu | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Asn | Arg | Ile | Trp | Phe | Asn | Ala | Ser | Pro | Val | Gln | Gln | Leu | Ile | Val | Glu | |
| | | | 420 | | | | | 425 | </ | | | | | | | |

Pro Ala Arg His Asn Gly His Ile Val Pro Leu Leu Pro Leu Arg
 565 570 575

<210> 7236

<211> 191

<212> PRT

<213> Enterobacter cloacae

<400> 7236

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Ser | Asn | Ile | Leu | Ser | Ser | Ser | Ala | Arg | Asn | Leu | Phe | Lys | Ile |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Leu | Ser | Ser | Phe | Leu | Ile | Gln | Lys | Asn | Pro | His | His | Glu | Glu | Val | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | His | Glu | Glu | Thr | Thr | Ala | Gly | Leu | Trp | Ala | Pro | Leu | Pro | Asp | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Val | Val | Leu | Phe | Leu | Asp | Phe | Asp | Gly | Val | Cys | His | Arg | Cys | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Glu | Thr | Phe | Glu | Arg | Met | Pro | Leu | Leu | Glu | Lys | Leu | Leu | Asp | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Cys | Pro | Ala | Met | Val | Ile | Val | Ile | Ser | Ser | Trp | Arg | Glu | Cys | Ala | |
| | | | 85 | | | | | | 90 | | | | 95 | | |
| Asn | Thr | Ser | Tyr | Leu | Lys | Ser | Leu | Phe | Arg | Val | Pro | Tyr | Arg | Asp | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Ile | Gly | Ala | Thr | Gly | Ser | Val | Tyr | Leu | Lys | His | Gly | Gln | Thr | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Arg | Ala | Ala | Glu | Cys | Glu | Asp | Phe | Val | Phe | Ser | His | Arg | Val | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Phe | Ile | Cys | Leu | Asp | Asp | Asp | Glu | Ser | Leu | Phe | Pro | Ala | Gly | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | His | Leu | His | Lys | Thr | Asp | Tyr | Tyr | Thr | Gly | Leu | Thr | Glu | Ser | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ala | Ala | Leu | Asn | Ala | Arg | Tyr | His | Gln | Leu | Met | Gly | Arg | | |
| | | | 180 | | | | | 185 | | | | | 190 | | |

<210> 7237

<211> 264

<212> PRT

<213> Enterobacter cloacae

<400> 7237

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| Ile | Arg | Gln | Glu | Arg | Asp | Ile | Met | Leu | His | His | Cys | Gln | Ala | Lys | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Asp | Asp | Ile | Tyr | Leu | Glu | Asp | Ile | Pro | His | Ile | Ile | His | Pro | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ala | Val | His | Asp | Leu | Glu | Asp | Thr | Ala | Leu | Pro | Asn | Arg | Ile | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Glu | Trp | Asn | Leu | Pro | Gln | Gly | Tyr | Thr | Gln | Phe | Val | Ser | Arg | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Gln | Phe | His | His | Gln | Arg | Pro | Trp | Leu | Ala | Tyr | Arg | Asp | Thr | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Asp | Ile | Arg | Tyr | Gly | Lys | Ile | Val | Leu | Leu | Arg | Lys | Asp | Ile | Thr |
| | | | | 85 | | | | | 90 | | | | 95 | | |
| Gly | Asn | Ala | Gly | Pro | Gly | Val | Ile | Ser | Asn | Gly | Asn | Leu | Arg | Asn | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Pro | Leu | Ser | Leu | Phe | Thr | Arg | Leu | Arg | Asp | Ile | Ile | Ser | Arg | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Lys | Arg | Pro | Gly | Tyr | Tyr | Val | Arg | Ser | Thr | Thr | Pro | Ala | Gln | His |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Gln | Ser | Thr | Lys | Thr | Ile | Asn | Ser | Lys | Ala | Ala | Gly | Arg | Leu | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ala | Gly | Gly | Leu | Tyr | Asn | Gly | Asn | Val | Glu | Gly | Phe | Arg | His | Thr |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Ala | Glu | Gln | Leu | Gly | Gly | Glu | Ala | Val | Glu | Gly | Tyr | Asp | Gln | Val | Leu | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Asn | Glu | Thr | Thr | Ser | Gly | Met | Leu | Val | Ala | Ala | Ala | Ser | Leu | Leu | Val | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Ile | Arg | Asn | Pro | Arg | Ser | Ala | Asp | Glu | Leu | Thr | Ser | Tyr | Leu | Gly | Lys | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Tyr | Lys | Lys | Ala | His | Val | Leu | Leu | Asp | Asp | Met | Asn | Val | Ser | Glu | Leu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Asn | Tyr | Met | Arg | Arg | Asp | Arg | Ala | Glu | Tyr | Leu | Pro | Leu | Arg | Gly | Thr | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Ile | Gln | Gln | Tyr | Cys | Thr | Pro | | | | | | | | | | | |
| | | | 260 | | | | | | | | | | | | | | |

<210> 7238

<211> 165

<212> PRT

<213> Enterobacter cloacae

<400> 7238

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| Ser | Phe | Leu | Phe | Asn | Ser | Gln | Tyr | Cys | Leu | Tyr | Ile | Gln | Tyr | Lys | Asn | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Ser | Ser | Val | Ala | Met | Ser | Val | Ile | Leu | Glu | His | Ile | Ser | Asn | Lys | Pro | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Tyr | Glu | Met | Ala | Pro | Phe | Phe | Ser | Asp | Leu | Leu | Ser | Cys | Gly | Val | Met | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Ser | Pro | Cys | Ala | Gly | His | Glu | Asp | Asn | Glu | Leu | Asn | Leu | His | Glu | Tyr | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Val | Val | Arg | Asn | Arg | Pro | Ser | Thr | Phe | Phe | Val | Arg | Ala | Ala | Gly | Leu | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Ser | Met | Ile | Asn | Ala | Gly | Ile | Asn | Asp | Gly | Ala | Ile | Leu | Val | Val | Asp | | |
| | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Arg | Ser | Leu | Thr | Ala | Arg | His | Gly | Ser | Ile | Val | Val | Ala | Leu | Val | Asp | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Gly | Glu | Phe | Thr | Val | Lys | Ile | Leu | His | Thr | Tyr | Pro | Glu | Leu | Leu | Leu | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Met | Pro | Ser | Asn | Pro | Ala | Tyr | Lys | Pro | Ile | Arg | Val | Asn | Pro | Glu | Ser | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Leu | Glu | Ile | Trp | Gly | Val | Val | Thr | Phe | Ala | Leu | Asn | Gln | Phe | Ser | His | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Val | His | Ala | Arg | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

165

<210> 7239

<211> 99

<212> PRT

<213> Enterobacter cloacae

<400> 7239

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| Cys | Pro | Met | Thr | Leu | Ser | Cys | Ser | Ser | Thr | Asp | Phe | Glu | Asn | Asp | Ser | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Asp | Phe | Arg | Pro | Ser | Arg | Ala | Arg | Cys | Cys | Leu | Arg | Phe | Arg | Leu | Cys | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Arg | Ser | Ile | Arg | Cys | Val | Tyr | Arg | Leu | Leu | Ile | Thr | Cys | Ser | Phe | Pro | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Phe | Arg | Arg | Asp | Ser | Tyr | Ser | Gly | Gln | Pro | Ser | Val | Ile | His | Ile | Thr | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Thr | Ser | Lys | Gly | Asp | Ser | Arg | Leu | Ile | Arg | Arg | Pro | Ser | Val | Ala | Ile | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Val | Arg | Ser | Pro | Asn | Thr | Cys | Ala | Thr | Thr | Val | Phe | Arg | Ser | Leu | Ser | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |

Tyr Ala

<210> 7240

<211> 424

<212> PRT

<213> Enterobacter cloacae

<400> 7240

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ser | Ser | Ala | Met | Tyr | Met | His | Val | Asp | Ile | Asn | Gly | Ala | Tyr | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Phe | Glu | Cys | Ala | Met | Asp | Pro | Lys | Leu | Ser | Lys | Lys | Pro | Leu | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Ala | Ser | Asn | Asn | Asp | Ser | Ser | Val | Ile | Ala | Met | Asn | Lys | Leu | Ala |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Lys | Ser | Val | Gly | Ile | Lys | Arg | Gly | Thr | Pro | Ile | Phe | Lys | Cys | Arg | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ile | Gln | Gln | His | Arg | Ile | Glu | Val | Arg | Ser | Ser | Asn | Phe | Thr | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Tyr | Glu | Asp | Tyr | Ser | Asn | Arg | Phe | His | Glu | Thr | Leu | Glu | Ser | Phe | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Gln | Ser | Ser | Arg | Tyr | Ser | Ile | Asp | Glu | Asn | Phe | Met | Leu | Leu | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Met | Asn | Lys | Ile | Ile | Asp | Tyr | Glu | Asp | Tyr | Gly | Arg | Leu | Ile | Arg |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Ser | Thr | Leu | Leu | His | Asn | Leu | Ser | Leu | Thr | Cys | Gly | Val | Gly | Cys | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Thr | Lys | Thr | Leu | Ala | Lys | Leu | Cys | Thr | Tyr | Ala | Ser | Lys | Arg | Trp |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Ala | Ala | Thr | Gly | Gly | Val | Val | Val | Leu | Thr | Asp | Gln | Ala | Arg | Ile | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Lys | Leu | Leu | Ser | Leu | Ile | Ser | Thr | Arg | Glu | Ile | Trp | Gly | Ile | Gly | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Ile | Ser | Glu | Arg | Leu | Ser | Ala | Phe | Gly | Ile | Ile | Thr | Ala | Gly | Asp |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Phe | Tyr | Asn | Ser | Asp | Val | Arg | Phe | Leu | Arg | Lys | Ser | Phe | Gly | Val | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Glu | Arg | Thr | Trp | Arg | Glu | Leu | His | Gly | Glu | Pro | Cys | Phe | Arg | Leu |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| His | Glu | Ser | Pro | Pro | Val | Arg | Gln | Gln | Ile | Ile | Val | Ser | Arg | Ser | Phe |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Gln | Arg | Leu | Asn | Glu | Ile | Gly | Lys | Leu | His | Glu | Ala | Val | Ser | Phe |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Phe | Thr | Ala | Arg | Ala | Ala | Glu | Gln | Leu | Arg | Lys | Asp | Gly | Ser | Trp | Thr |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Arg | Gln | Ile | Thr | Val | Phe | Ile | Gln | Ser | Ser | Asn | Tyr | Ala | Gln | Gly | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Arg | Tyr | Ser | Asn | Cys | Gly | Ile | Glu | Pro | Leu | Thr | Ala | Thr | Gln | Asp |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Thr | Arg | Asp | Leu | Val | Asp | Ala | Ala | Met | Thr | Ile | Leu | Asn | Arg | Ile | Tyr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Arg | Pro | Gly | Ile | Ala | Tyr | Ala | Lys | Ala | Gly | Val | Met | Leu | Ser | Ala | Met |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Asp | Gly | Thr | Glu | Gln | Leu | Ser | Leu | Phe | Asp | Thr | Arg | Pro | Ala | Arg |
| | | 355 | | | | 360 | | | | | | 365 | | | |
| Pro | Gly | Ser | Gln | Ala | Leu | Met | Lys | Val | Met | Asp | Arg | Phe | Asn | Lys | Glu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Lys | Arg | Gly | Ala | Leu | Phe | Leu | Leu | Gly | Glu | Gly | Ile | Gln | Gln | Asp | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Arg | Met | Lys | Gln | Ala | Met | Leu | Ser | Pro | Arg | Tyr | Thr | Thr | Arg | Trp | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |

Glu Leu Leu Val Val Lys Ala
420

<210> 7241
<211> 190
<212> PRT
<213> Enterobacter cloacae

<400> 7241
Ile Lys Arg Arg Phe Ser Gly Glu Ile Val Val Phe Thr Pro Pro Ala
1 5 10 15
Asp Asp Val Lys Pro Ile Pro Val Pro Asp Glu Ile Tyr Thr Gln Cys
20 25 30
Ile Thr Asp Ala Ala Arg Tyr Phe Gly Ile Asp Ala Glu Leu Val Phe
35 40 45
Thr Leu Phe Asp Asn Glu Gly Gly Lys Val Gly Thr Phe Ser Arg Asn
50 55 60
Thr Asn Gly Thr Tyr Asp Ile Gly Pro Met Gln Ile Asn Ser Ser Asn
65 70 75 80
Leu Pro Glu Ile Lys Lys His Phe Pro Thr Val Thr Trp Arg Val Leu
85 90 95
Ala Tyr Asp Ala Cys Ala Ser Phe Trp Val Gly Thr Trp Trp Leu Tyr
100 105 110
Arg Lys Ile Val Asp Arg Lys Gly Asn Val Phe Glu Gly Ile Ala Asp
115 120 125
Tyr Asn Ser Lys Thr Pro Lys Val Arg Ala Lys Tyr Ile Phe Asn Phe
130 135 140
Met Val Lys Tyr Asn Arg Arg Ile Gln Gln Arg Asn Gly Met Gly Glu
145 150 155 160
Leu Tyr Gln Trp Thr Gln Gln Pro Pro Arg Tyr Asn Gly His Ile Ala
165 170 175
Lys Asn Val Pro Glu Gln Asn Pro Thr Pro Val Val Lys
180 185 190

<210> 7242
<211> 76
<212> PRT
<213> Enterobacter cloacae

<400> 7242
Asn Phe Ala Thr Gly Lys Val Pro Ser Gly Trp Gln Val His His Lys
1 5 10 15
Ile Pro Leu Asp Asp Gly Gly Thr Asn Ala Ile Asp Asn Leu Val Leu
20 25 30
Ile Gln Asn Ser Pro Tyr His Ser Ala Leu Ser Lys Ala Gln Ser Ile
35 40 45
Ile Thr Lys Asp Leu Pro Tyr Asn Ser Ser Thr Lys Val Leu Trp Pro
50 55 60
Ser Pro Asn Gly Val Ile Tyr Pro Val Gly Lys
65 70 75

<210> 7243
<211> 172
<212> PRT
<213> Enterobacter cloacae

<400> 7243
Glu Ala Leu Met Lys Asp Leu Thr Gln Leu Leu Ser Ser Leu Lys Arg
1 5 10 15
Leu Met Val Ala Asp His Tyr Pro Leu Ala Ser Pro Val Ala Pro Glu
20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Leu | Lys | Asp | Leu | Ile | Cys | Asn | Pro | Pro | Pro | Val | Glu | Trp | Ala | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Lys | Lys | Ser | Ala | Tyr | Ile | Asp | Ile | Gln | Lys | Leu | Ile | Lys | Thr | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Asp | Tyr | Ala | Gln | Val | Phe | Asn | Ala | Met | Asp | Gly | Phe | Glu | Tyr | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Leu | Thr | Phe | Tyr | Asn | Leu | Val | Gln | Ala | Glu | Asn | Glu | Asn | Leu | Leu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Trp | Ser | Asn | Ile | Tyr | Ile | Arg | Asn | Phe | Glu | Ala | Arg | Asp | Asn | Glu | Ile |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Tyr | Val | Asp | Pro | Asn | Leu | Thr | Asp | Lys | Val | Leu | Ile | Gly | Glu | Asp | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Ser | Leu | Phe | Ala | Tyr | Ser | Phe | Ala | Asp | Asp | Cys | Phe | Gln | Ile | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Lys | Ala | Ser | Thr | Asp | Tyr | Val | Ile | Glu | Ser | His | Thr | Glu | Phe | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Phe | Leu | Ser | Ser | Leu | Ile | Gln | Thr | Val | Ser | | | | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 7244

<211> 500

<212> PRT

<213> Enterobacter cloacae

<400> 7244

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Thr | Lys | Asn | Ser | Lys | Ala | Met | Thr | Cys | Leu | Arg | Pro | Ile | Arg | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Ile | Ser | Met | Leu | Ala | Ala | Val | Leu | Glu | Ala | Leu | Met | Arg | Ser | Asn |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Ala | Val | Phe | Asn | Phe | Lys | Lys | Leu | Leu | Ser | Leu | Ser | Val | Cys | Ala | |
| | 35 | | | | | | 40 | | | | 45 | | | | |
| Ala | Ile | Leu | Ala | Pro | Thr | Ala | Asn | Ala | Asp | Asn | Ala | Met | Arg | Asn | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Asn | Gly | Met | Met | Thr | Ser | Thr | Ser | Pro | Ala | Thr | Phe | Ser | Thr | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Arg | Thr | Gly | Ile | Val | Gly | Gly | Ser | Met | Ser | Tyr | Arg | Thr | Thr | Asn |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Val | Asn | Thr | Asn | Leu | Val | Ser | Met | Ser | Phe | Pro | Lys | Ala | Ser | Val | Gly |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Cys | Asn | Gly | Ile | Asp | Val | Phe | Leu | Gly | Ser | Phe | Ser | Met | Ile | Asn | Gly |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Asp | Gln | Leu | Val | Gln | Val | Ala | Arg | Gly | Ile | Ala | Gln | Gly | Ala | Ala | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Ala | Phe | Asn | Val | Ala | Val | Ser | Ala | Ile | Cys | Ala | Asp | Cys | Ala | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Ile | Asn | Asp | Ile | Gln | Asn | Lys | Leu | Gln | Ala | Leu | Asn | Lys | Phe | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Lys | Asp | Ser | Cys | Asn | Ala | Thr | Tyr | Ser | Phe | Leu | Ser | Glu | Asn | Val | Gly |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Thr | Pro | Ser | Gln | Phe | Ala | Asn | Ser | Val | Ser | Ser | Gly | Pro | Ala | Ser | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Gly | Ser | Ile | Asn | Gly | Leu | Ile | Pro | Asp | Phe | Gly | Ser | Ser | Met | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Ser | Pro | Glu | Ala | Val | Thr | Ser | Gln | Val | Lys | Ala | Lys | Asp | Pro | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Phe | Ala | Glu | Lys | Phe | Ser | Gly | Asn | Leu | Phe | Tyr | Met | Ser | Phe | Met |
| | | | | 245 | | | | 250 | | | | | | 255 | |
| Asp | Ile | Asp | Lys | Gly | Thr | Met | Asn | Ile | Gly | Gly | Val | Thr | Glu | Leu | Ser |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Gly | Tyr | Lys | Leu | Ala | Glu | Gln | Leu | Met | Ser | Leu | Val | Gly | Thr | Val | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |

Ile Asn Trp Asp Ser Lys Gly Glu Lys Ala Gly Met Glu Val Arg Pro
 290 295 300
 Ser Thr Met Thr Val Thr Asp Tyr Ile Met Gly Pro Pro Ala Gly Gly
 305 310 315 320
 Ser Ile Lys Met Leu Lys Cys Ser Pro Ala Pro Asp Pro Ser Ser Pro
 325 330 335
 Arg Lys Ala Gln Cys Leu Val Met Ser Glu Val Asn Asp Gly Gly Phe
 340 345 350
 Lys Gly Leu Lys Asp Thr Ile Ser Asp Leu Leu Leu Asn Val Gln Lys
 355 360 365
 Lys Ile Ile Asn Asp Val Arg Val Ser Asp Asp Glu Leu Arg Ile Ile
 370 375 380
 Ser Tyr Ile Gly Ile Pro Thr Ile Ile Asp Ser Leu Gln Thr Phe Glu
 385 390 395 400
 Ala Pro Glu Gly Tyr Ala Tyr Ile Gln Asp Ile Ser Thr Ile Ala Ala
 405 410 415
 Thr Ser Leu Val Ile Asn Met Leu Arg Gln Val Glu Ala Lys Ile Ser
 420 425 430
 Thr Met Ser Ile Pro Ser Glu Ser Leu Ser Gly Lys Arg Asp Asp Leu
 435 440 445
 Asn Arg Leu Thr Asp Asn Leu Ser Lys Gln Val Lys Ala Ala Tyr Glu
 450 455 460
 Leu Ser His Ser Gln Val Gly Thr Ser Ser Asp Val Ile Ser Thr Trp
 465 470 475 480
 Asp Asn Arg Arg Leu Gln Arg Lys Ala Phe Thr Glu Ser Ile Arg Gly
 485 490 495
 Thr Arg Asn
 500

<210> 7245

<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 7245

Gly Ala Pro Val Ala Ser Val Ser Ile Ser Cys Pro Ser Cys Ser Ala
 1 5 10 15
 Thr Asp Gly Val Val Arg Asn Gly Lys Ser Thr Ala Gly His Gln Arg
 20 25 30
 Tyr Leu Cys Ser His Cys Arg Lys Thr Trp Gln Leu Gln Phe Thr Tyr
 35 40 45
 Thr Ala Ser Gln Pro Gly Thr His Gln Lys Ile Ile Asp Met Ala Met
 50 55 60
 Asn Gly Val Gly Cys Arg Ala Thr Ala Arg Ile Met Gly Val Gly Leu
 65 70 75 80
 Asn Thr Ile Phe Arg His Leu Lys Asn Ser Gly Arg Ser Arg
 85 90 95

<210> 7246

<211> 653

<212> PRT

<213> Enterobacter cloacae

<400> 7246

Thr Val Ser Ala Ile Trp Tyr Asp Ser Pro Asn Ile Arg Ile Trp Lys
 1 5 10 15
 Glu Arg Tyr Met Gly Asp Leu Val Ser Lys Asn Asn Ile Asp Arg Leu
 20 25 30
 Glu Arg Phe His Ser Leu Leu Ala Gly Gln Tyr Trp Thr Ser Thr Asp
 35 40 45
 Ser Ile Pro Glu Glu Gly Ile Val Ala Gly Asp Thr Leu Leu Ile Thr

| | | |
|---------------------|-----------------------------|-------------------------|
| 50 | 55 | 60 |
| Ser Leu Arg Tyr Val | Glu Asp Lys Leu His Thr | Val Ile Leu Arg Ala |
| 65 | 70 | 75 |
| His Pro Arg Val Tyr | Gly Gln Thr Val Ala Ile | Val Thr Glu Asp Ser |
| 85 | 90 | 95 |
| Ser Gly Asn Arg Arg | Glu Arg Gly Lys Glu Met Arg | Glu His Arg Phe |
| 100 | 105 | 110 |
| Leu Val Lys Asp Phe | Leu Ser Ser Phe Val Phe | Glu Pro Asp His Lys |
| 115 | 120 | 125 |
| Val Ile Arg Asp Ala | Glu Leu Arg Gln Ala Gln | Glu Val Asn Ser |
| 130 | 135 | 140 |
| Leu Gln Ala Ser Leu | Thr Ala Leu Val Ser Asp | Ala Gln Gly Leu Arg |
| 145 | 150 | 155 |
| Asp Leu Ala Ile Glu | Gln Leu Gly Thr Asp | Asp Arg Glu Asn Pro Val |
| 165 | 170 | 175 |
| Thr Gly Leu Ser Val | Ala Leu Val Pro Pro | Gln Glu Gln Ala Val |
| 180 | 185 | 190 |
| Thr Ser Leu Ala Ile | Gly Ser Val Gln Asn Ala | Leu Ser Ser Gly Ile |
| 195 | 200 | 205 |
| Ser Asp Thr Arg Ile | Glu Gln Ile Arg Glu Ala | Ala Leu Lys Glu Gly |
| 210 | 215 | 220 |
| Gln Ile Ser Thr Ala | Ile Ser Lys Ile Ile Thr | Gln Arg Thr Gln Ala |
| 225 | 230 | 235 |
| Ile Ala Asn Ala Ser | Lys Arg Met Leu Pro Tyr | Phe Glu Glu Val Ala |
| 245 | 250 | 255 |
| Ala Ala Ser Leu Ala | Thr Thr Glu Glu Ala Met | Glu Tyr Val Lys Lys |
| 260 | 265 | 270 |
| Ile His Asp Gly Val | Gly Ser Leu Glu Leu Tyr | Thr Gly Lys Asp Val |
| 275 | 280 | 285 |
| Glu Val Val Asn Ile | Val Lys Gly Glu Ser Ala | Pro Ser His Leu Pro |
| 290 | 295 | 300 |
| Leu Gln Val Val Gln | Ala Lys Leu Met Val Asp | Glu Glu Leu Ala Val |
| 305 | 310 | 315 |
| Trp Cys Asp Leu Asp | Ser Trp Phe Asp Phe Ser | Asp Met Glu Lys Phe |
| 325 | 330 | 335 |
| His Glu Thr Leu Arg | Thr Ser Pro Gly Leu Val | Glu Gln Ile Phe Pro |
| 340 | 345 | 350 |
| Ser Glu Arg Ser Ile | Val Cys Met Ala Thr Thr | Arg Arg Tyr Ile Asp |
| 355 | 360 | 365 |
| Tyr Arg Asp Pro Trp | Glu Asn His Val Arg Asn | Asp Arg Asn Arg Val |
| 370 | 375 | 380 |
| Val Phe Leu Leu Val | Arg Asp Gly Gln Asn Ile | His Gln Val Tyr Cys |
| 385 | 390 | 395 |
| Ser Val Glu Ser His | Leu Gly Ala Ser Gln Leu | Phe Pro Ser Ala Ser |
| 405 | 410 | 415 |
| Glu Gln Glu Ala His | Phe Gln Gly Ile Asp | Gly Ser Thr Ile Lys Phe |
| 420 | 425 | 430 |
| Glu Asp Val Ser Tyr | Thr Asp Arg Leu Lys Gln | His Asp Leu Met Ala |
| 435 | 440 | 445 |
| Leu His Tyr Arg Arg | Phe Leu Ile Leu Ile Cys | Gly Leu Asp His Arg |
| 450 | 455 | 460 |
| Leu Lys Leu Phe Gly | Asp Phe Tyr Asp Thr Asn | Thr Pro Tyr Ser Phe |
| 465 | 470 | 475 |
| Leu Ser Leu Glu Phe | Gln Glu Arg Tyr Phe Gln | Phe Leu His Asp Lys |
| 485 | 490 | 495 |
| Asp Gly Ser Gly Leu | Leu Gly Met Ala Glu Thr | Arg Pro Ser Leu Gln |
| 500 | 505 | 510 |
| Ser Tyr Leu Glu Gln | Ala Asn Ser Cys Leu Gln | Ser Gly Ser Arg Val |
| 515 | 520 | 525 |
| Met Cys Asn Trp Asp | Ser Leu Met Asn Pro Val | Thr Ala Pro Gly Ala |
| 530 | 535 | 540 |

Val Gln Glu Asp Asn Ser Tyr Ser Gly Tyr Lys Trp Leu Gly Arg Thr
 545 550 555 560
 His Lys Asn Tyr Glu Pro Val Ile Ala Phe Arg Gln Gly Asp Asp Ile
 565 570 575
 Cys Val Asn Ala Thr Val Asn Arg Tyr Ser Thr Asp Arg Asp Phe Asn
 580 585 590
 Cys Lys Val Asn Leu Ser Leu Phe Lys Glu Ser Ser Arg Asn Asp Ala
 595 600 605
 Glu Leu Gly Phe Leu Cys Met Asp Thr Ile Lys Ala Glu Glu Leu Glu
 610 615 620
 Trp Tyr Ile His Arg Arg Lys Phe Arg Ser Asn His Leu Phe Tyr Ile
 625 630 635 640
 Arg Phe Phe Lys Met Val Leu Pro Thr Val Gln Asn
 645 650

<210> 7247

<211> 105

<212> PRT

<213> Enterobacter cloacae

<400> 7247

Ser Ala Pro Leu Asn Thr Gly Glu Leu Met Ile Thr Phe Glu Ile Arg
 1 5 10 15
 Met Glu Ile Lys Val Leu His Lys Arg Gly Met Ser Ile Arg Ala Ile
 20 25 30
 Ala Arg Glu Leu Gly Ile Ser Arg Asn Thr Val Arg Ser His Leu Lys
 35 40 45
 Ala Lys Ser Glu Lys Pro Gln Tyr Ser Pro Arg Pro Ala Pro Ser Ser
 50 55 60
 Leu Leu Asp Glu Tyr Arg Asp Tyr Ile Ser Lys Arg Ile Ser Asp Ala
 65 70 75 80
 His Pro Tyr Lys Ile Pro Ala Thr Val Ile Ala Arg Glu Ile Met Glu
 85 90 95
 Leu Gly Tyr Arg Gly Arg Ala Phe
 100 105

<210> 7248

<211> 253

<212> PRT

<213> Enterobacter cloacae

<400> 7248

Gly Ala Glu Met Lys Lys Ile Ile Lys Ala Ser Val Leu Leu Leu Ser
 1 5 10 15
 Leu Ser Thr Ala Phe Thr Met Asn Ala Glu Pro Val Asn Thr Met Val
 20 25 30
 Leu Pro Asp Ala Ala Arg Asp Lys Leu Lys Ala Ile Gly Leu Ser Ile
 35 40 45
 Glu His Val Glu Pro Ser Pro Val Lys Asp Ile Phe Thr Val Ile Ser
 50 55 60
 Arg Glu Gly Val Ser Tyr Val Ser Lys Asp Gly Asp Tyr Ile Phe Thr
 65 70 75 80
 Gly Ser Leu Phe His Val Lys Gly Lys Asp Val Val Asn Thr Thr Glu
 85 90 95
 Gln Ala Ile Leu Met Gly Val Arg Glu Phe Ala Ser Lys Thr Lys Ser
 100 105 110
 Ile Asp Tyr Lys Ser Pro Asn Glu Lys Tyr Arg Leu Ala Ile Phe Thr
 115 120 125
 Asp Ile Thr Cys Gly Tyr Cys Gln Lys Leu His His Asp Leu Lys Ser
 130 135 140
 Tyr Leu Asp Ala Gly Ile Ser Ile Lys Phe Leu Ala Phe Pro Arg Ala

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | 150 | | 155 | | 160 | | | | | | | | | |
| Gly | Leu | Asn | Ser | Val | Val | Ala | Gly | Asn | Met | Ala | Lys | Ile | Trp | Cys | Ser |
| | | 165 | | | | | | | 170 | | | | | 175 | |
| Ala | Lys | Pro | Asn | Glu | Ala | Leu | Asp | Ala | Ala | Met | Asn | Pro | Val | Ser | Thr |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ile | Pro | Glu | Gly | Arg | Pro | Asp | Glu | Ala | Cys | Leu | Asn | Ile | Ile | Lys | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| His | Phe | Gln | Val | Ala | Ser | Thr | Ile | Pro | Leu | Gln | Gly | Thr | Pro | Thr | Met |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Thr | Leu | Ser | Gly | Lys | Pro | Gln | Leu | Phe | Thr | Gly | Trp | Leu | Ser | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Asn | Leu | Val | Thr | Gln | Met | Gly | Ala | Ala | Gln | Lys | | | | |
| | | | | 245 | | | | | 250 | | | | | | |

<210> 7249

<211> 303

<212> PRT

<213> Enterobacter cloacae

<400> 7249

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Lys | Ser | Ile | Val | Ser | Arg | Ile | Ile | Pro | Ile | Tyr | Arg | Ala | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Ile | His | Arg | Arg | Leu | Ile | Thr | Asn | Arg | Leu | Lys | Ser | Ile | Lys | Val |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ala | Met | Ser | Lys | Glu | Phe | Tyr | Leu | Lys | Pro | Met | Ala | Thr | Ile | Leu | Ile |
| | 35 | | | | | | 40 | | | | 45 | | | | |
| Ser | Ala | Val | Ile | Ala | Thr | Ala | Ala | Ser | Ala | Leu | Ile | Thr | Ala | Thr | Tyr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Phe | Lys | Pro | Lys | Val | Leu | Ser | Glu | Glu | Glu | Ile | Gly | Lys | Ile | Ala | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Tyr | Leu | Val | Lys | Asn | Pro | His | Tyr | Leu | Val | Glu | Ala | Gly | Lys | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Glu | Asn | Gln | Asn | Val | Ser | Ala | Ser | Val | Glu | Arg | Ile | Ile | Pro | Tyr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Pro | Ala | Leu | Leu | Asp | Thr | Lys | Glu | Thr | Pro | Asn | Ile | Gly | Pro | Asp |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Asp | Ala | Asp | Val | Ala | Val | Ile | Glu | Phe | Phe | Asp | Tyr | Gln | Cys | Ile | Tyr |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Cys | Met | Arg | Val | Thr | Pro | Val | Val | Glu | Ser | Val | Met | Asn | Gln | Ser | Lys |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Asp | Val | Lys | Phe | Phe | Phe | Lys | Glu | Phe | Pro | Ile | Phe | Ala | Gly | Ser | Lys |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Pro | Val | Ser | Ala | Met | Gly | Ala | Ala | Thr | Gly | Leu | His | Val | Tyr | Gln | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Gly | Ala | Glu | Ala | Tyr | Arg | Lys | Tyr | His | Asn | Asn | Leu | Met | Ala | Val |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ala | His | Thr | Phe | Met | Thr | Ser | Gln | Arg | Lys | Phe | Glu | Leu | Thr | Asp | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Thr | Val | Val | Glu | Lys | Ser | Gly | Phe | Asn | Ser | Thr | Phe | Ser | Asp | Arg |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Glu | Lys | Asn | Arg | Tyr | Glu | Asn | Val | Ile | Ser | Gly | Asn | Met | Gln | Leu | Gly |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Glu | Ala | Leu | Gly | Ile | Thr | Gly | Thr | Pro | Gly | Phe | Ile | Ile | Met | Asn | Met |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Lys | Lys | Pro | Asn | Ala | Ala | Thr | Thr | Thr | Phe | Ile | Pro | Gly | Ala | Met | Asp |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Ala | Ala | Thr | Leu | Gln | Gly | Ala | Ile | Glu | Lys | Ala | Arg | Gly | Ala | | |
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<213> Enterobacter cloacae

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Trp | Leu | Leu | Phe | Leu | Ser | Ala | Val | Pro | Pro | Val | Gln | Leu | Leu | Thr |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Trp | Cys | Val | Thr | Ala | Lys | Ala | Leu | Pro | Asp | Ile | Ser | Ala | Ile | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Thr | Ala | Val | Lys | His | Gly | Asn | Cys | Ser | Ser | Leu | Thr | Pro | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
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| Leu | Arg | Ser | Asp | Met | Asp | Tyr | Asn | Ile | Tyr | Thr | Leu | Gly | Asp | Ile | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Val | Trp | Ser | Ala | Phe | Thr | Gly | Ile | Ala | Leu | Ile | Phe | Ser | Gln | Tyr |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Thr | Gly | Val | Lys | Glu | Phe | Leu | Thr | Thr | Ala | Ala | Val | Val | Ala | Gly | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Leu | Phe | Tyr | Lys | Thr | Trp | Leu | Trp | Leu | Gln | Ala | Pro | Thr | Lys | Asn |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Glu | Leu | Pro | Phe | Phe | Ser | Trp | Phe | Leu | Gly | Leu | Ile | Leu | Phe | Met | Met |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Met | Val | Arg | Val | Asp | Val | Thr | Ile | Glu | Ser | Val | Lys | Ser | Gly | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Arg | Asn | Val | Asp | Gly | Ile | Pro | Ile | Phe | Ile | Ala | Ala | Met | Ala | Thr |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Val | Thr | Thr | Asn | Leu | Ser | Gln | Gly | Leu | Leu | Lys | Asp | Tyr | Lys | Thr | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Asp | Pro | Leu | Ser | Pro | Val | Asp | Leu | Ser | Ala | Thr | Thr | Leu | Asp | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Ile | Thr | Leu | Gly | Pro | Met | Ile | Arg | Phe | Val | Lys | Phe | Leu | Gln | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gly | Gly | Asp | Ser | Gln | Gly | Tyr | Cys | Ser | Ala | Phe | Pro | Glu | Pro | Ala | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gly | Leu | Gly | Pro | Met | Asn | Val | Cys | Ala | Thr | Val | Gln | Ser | Leu | Ala | Tyr |
| | | | 180 | | | | | | 185 | | | | 190 | | |
| Asn | Cys | Leu | Lys | Ala | Thr | Gln | Asn | Ser | Ser | Ala | Asn | Ile | Ala | Gly | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Thr | Ile | Phe | Asn | Asp | Ile | Phe | Ser | Ala | Asn | Leu | Ala | Asp | Ser | Met |
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| Asp | Arg | Ile | Asn | Gln | Ala | Met | Lys | Gly | Ala | Leu | Lys | Asn | Ala | Ser | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Ser | Ile | Val | Gly | Ala | Asn | Gly | Ser | Lys | Ser | Gly | Thr | Cys | Asp | Glu | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Trp | Ser | Thr | Val | Lys | Gln | Val | Thr | Ser | Thr | Ala | Glu | Ala | Arg | Gln | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Ser | Leu | Ile | Gly | Gln | Thr | Asn | Gly | Ile | Leu | Thr | Pro | Asp | Glu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asn | Gly | Ala | Pro | Thr | Gly | Ala | Ser | Phe | Thr | Asp | Val | Met | Ala | Ser | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Gly | Met | Tyr | Gly | Lys | Ala | Ile | Gly | Ser | Tyr | Asp | Ala | Thr | Leu | Asn |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Phe | Ile | Met | Asn | Glu | Leu | Arg | Asn | Gly | Ala | Ser | Lys | Tyr | Lys | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Pro | Leu | Gly | Leu | Ala | Ser | Asp | Met | Gln | Leu | Phe | Glu | Ala | Ser | Leu | Lys |
| | | | 340 | | | | | 345 | | | | | | 350 | |
| Arg | Thr | Asn | Thr | Met | Ala | Ser | Gln | Gly | Gln | Leu | Trp | Leu | Gln | Leu | Ser |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Ala | Ala | Ile | Ala | Phe | Leu | Glu | Met | Phe | Ala | Tyr | Met | Val | Ala | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Phe | Ala | Leu | Leu | Met | Leu | Leu | Ala | Leu | Gly | Gly | Asn | Gly | Val | Ala | Ala |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Ala | Ala | Lys | Tyr | Leu | Gln | Leu | Ile | Leu | Phe | Val | Asn | Met | Trp | Pro | Leu |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Thr | Ala | Val | Met | Val | Asn | Ala | Tyr | Val | Lys | Lys | Val | Ala | Thr | Ala | Asp |
| | | | 420 | | | | | 425 | | | | | | 430 | |
| Leu | Asp | Thr | Trp | Ser | Thr | Leu | Asn | Ser | Gln | Asn | Asn | Ala | Val | Thr | Trp |
| | | 435 | | | | 440 | | | | | | 445 | | | |
| Met | Gly | Leu | Pro | Gly | Leu | Ala | Glu | Thr | Tyr | Ser | Ser | Tyr | Leu | Ser | Val |
| | 450 | | | | 455 | | | | | | 460 | | | | |
| Ala | Ser | Ala | Leu | Tyr | Ala | Leu | Ile | Pro | Val | Leu | Thr | Leu | Phe | Leu | Met |
| 465 | | | | 470 | | | | | | 475 | | | | | 480 |
| Thr | Gln | Ser | Ile | His | Pro | Met | Met | Asn | Ala | Val | Lys | Gly | Val | Thr | Pro |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Asp | Ala | Pro | Val | Asp | Thr | Gly | His | Val | Thr | Pro | Lys | Val | Trp | Asp | Gly |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Pro | Asn | Ser | Gly | Lys | Ser | Ser | Phe | Gly | Asp | Val | Thr | Arg | Thr | Ala | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Thr | Ser | Thr | Gly | Gln | Gly | Tyr | Ser | Asp | Gly | Gly | Ala | Val | Asp | Ser | Ser |
| | 530 | | | | 535 | | | | | | 540 | | | | |
| Asn | Phe | Arg | Leu | Gly | Met | Trp | Asn | Ala | Gly | Ser | Ser | Ile | Ala | Asn | Ser |
| 545 | | | | 550 | | | | | | 555 | | | | | 560 |
| Gln | Gly | Gln | Gly | Ser | Ala | Val | Thr | Ser | Ser | Val | Met | Ser | Ala | Ala | Ser |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Asn | Ser | Phe | Gln | Ala | Gly | Tyr | Ser | Gln | Met | Ser | Glu | Ile | Gly | Arg | Ser |
| | | 580 | | | | | 585 | | | | | | 590 | | |
| Gly | Gln | Ser | Ser | Gln | Gln | Phe | Ser | Thr | Asn | Leu | Gln | Thr | Met | Lys | Gln |
| | 595 | | | | | 600 | | | | | | 605 | | | |
| Ile | Ser | Asp | Lys | Ile | Gly | Ala | Ser | Val | Ala | Glu | Gly | Ile | Ala | Thr | Lys |
| | 610 | | | | 615 | | | | | | 620 | | | | |
| His | Gly | Val | Ser | Ala | Ser | Gln | Met | Ala | Ser | Ile | Ala | Ser | Asn | Val | Ile |
| 625 | | | | 630 | | | | | | 635 | | | | | 640 |
| Leu | Asn | Ala | Gly | Leu | Asn | Gly | Gly | Val | Gly | Thr | Gly | Asn | Gly | Ala | Gly |
| | | | 645 | | | | | | 650 | | | | | 655 | |
| Leu | Lys | Ala | Ala | Val | Ala | Gly | Gln | Leu | Ser | Ser | Gly | Ala | Ser | Lys | Thr |
| | | 660 | | | | | | 665 | | | | | 670 | | |
| Asn | Thr | Gly | Ser | Asp | Ser | Leu | Ser | Asn | Asp | Leu | Ser | Lys | Ala | Ile | Thr |
| | 675 | | | | | 680 | | | | | | 685 | | | |
| Asn | Gln | Leu | Ser | Gln | Asp | Ser | Ala | Leu | Thr | Asp | Gln | Phe | Ser | Lys | Ala |
| | 690 | | | | 695 | | | | | | 700 | | | | |
| Ala | Ser | Gln | Val | Ser | Ser | Asp | Gln | Ile | Ser | Asn | Thr | Asn | Ala | Phe | Lys |
| 705 | | | | 710 | | | | | | 715 | | | | | 720 |
| Glu | Ala | Ser | Ser | Lys | Met | Asn | Gln | Ala | Thr | Gln | Thr | Met | Ala | Gln | Asn |
| | | | 725 | | | | | | 730 | | | | | 735 | |
| Ile | Ser | Thr | Ser | Val | Ser | Thr | Asn | Ala | Ser | Ser | Asn | Ser | Gly | Met | Ser |
| | | 740 | | | | | 745 | | | | | | 750 | | |
| Leu | Asp | Ser | Lys | Gln | Ser | Ile | Asn | Leu | Asp | Arg | Phe | Ser | Asp | Ser | Ile |
| | 755 | | | | | 760 | | | | | | 765 | | | |
| Arg | Asn | Lys | Asn | Phe | Ser | Asp | Asp | Val | Arg | Asn | Phe | Ala | Arg | Lys | |
| | 770 | | | | 775 | | | | | 780 | | | | | |
| Asn | Gly | Leu | Asp | Glu | Asn | Ala | Phe | Met | Glu | Lys | Phe | Asn | Ser | Tyr | Asn |
| 785 | | | | 790 | | | | | | 795 | | | | | 800 |
| Asp | Thr | Phe | Lys | Ala | Ser | Asn | Gln | Leu | Gly | Ser | Gln | Leu | Gln | Arg | Thr |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|------|-----|--|--|------|--|--|--|------|--|--|--|-----|--|--|--|
| | | | | | | | | | | 805 | | | | | | | | 810 | | | | | | | | 815 | | | |
| Asp | Ala | Leu | Val | Ala | Ala | Thr | Arg | Asp | Phe | Ser | Glu | Gln | Lys | Ile | Ala | | | | | | | | | | | | | | |
| | | | | | | | | | | 820 | | | | 825 | | | | 830 | | | | | | | | | | | |
| Ile | Asp | Thr | Ala | Arg | Gly | Glu | Thr | Ala | Glu | Ser | Asn | Lys | Gln | Asp | Leu | | | | | | | | | | | | | | |
| | | | | | | | | | | 835 | | | | 840 | | | | 845 | | | | | | | | | | | |
| Arg | Glu | Thr | Ser | Ser | Leu | Leu | Lys | Ser | Leu | Val | Ser | Asp | Phe | Gly | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 850 | | | | 855 | | | | 860 | | | | | | | | | | | |
| Asn | Ala | Gln | Gln | Leu | Leu | Pro | Ile | Thr | Asn | Gln | Leu | Asp | Arg | Ile | Ser | | | | | | | | | | | | | | |
| | | | | | | | | | | 865 | | | | 870 | | | | 875 | | | | 880 | | | | | | | |
| Gly | Asp | Gly | Ser | Gly | Ile | Asn | Thr | Ile | Thr | Gln | Ala | Gln | Asp | Arg | Thr | | | | | | | | | | | | | | |
| | | | | | | | | | | 885 | | | | 890 | | | | 895 | | | | | | | | | | | |
| Pro | Asp | Ser | Val | Asn | Thr | Ser | Gly | Val | Met | Ser | Ala | Ser | Arg | Val | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 900 | | | | 905 | | | | 910 | | | | | | | | | | | |
| Glu | Leu | Gly | Gly | Ser | Val | Asp | Ser | Gln | Ala | Lys | Leu | Gly | Leu | Ser | Ser | | | | | | | | | | | | | | |
| | | | | | | | | | | 915 | | | | 920 | | | | 925 | | | | | | | | | | | |
| Asn | Ala | Gln | Asp | Ala | Thr | Gln | His | Val | Pro | Gly | Lys | Ser | Glu | Ala | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 930 | | | | 935 | | | | 940 | | | | | | | | | | | |
| Phe | Thr | Pro | Tyr | Asn | Leu | Asp | Asn | Ala | Gly | Lys | Gly | Asp | Ile | Gln | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 945 | | | | 950 | | | | 955 | | | | 960 | | | | | | | |
| Ile | His | Asn | Asn | Asn | Val | Gly | Arg | Thr | Tyr | Ser | Asp | Glu | Glu | Arg | Asn | | | | | | | | | | | | | | |
| | | | | | | | | | | 965 | | | | 970 | | | | 975 | | | | | | | | | | | |
| Val | Leu | Asn | Ser | Leu | Glu | Lys | Asn | Gly | Pro | Val | Leu | Asn | Asn | Gln | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 980 | | | | 985 | | | | 990 | | | | | | | | | | | |
| Val | Glu | Lys | Val | Val | Asn | Ser | Gly | Gln | Asp | Val | Arg | Asn | Ala | Glu | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 995 | | | | 1000 | | | | 1005 | | | | | | | | | | | |
| Thr | Phe | Asn | Asp | Leu | Glu | Lys | Val | Gly | Gly | Arg | Val | Val | Gly | Asp | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 1010 | | | | 1015 | | | | 1020 | | | | | | | | | | | |
| Met | Asp | Gln | Arg | Ala | Thr | Ala | Leu | Asn | Ser | Met | Tyr | Gln | Ser | Gly | Gln | | | | | | | | | | | | | | |
| | | | | | | | | | | 1025 | | | | 1030 | | | | 1035 | | | | 1040 | | | | | | | |
| Val | Arg | Gly | Leu | Ser | Asn | Asn | Thr | Asp | Asn | Tyr | Phe | Ser | Arg | Val | Ala | | | | | | | | | | | | | | |
| | | | | | | | | | | 1045 | | | | 1050 | | | | 1055 | | | | | | | | | | | |
| Asn | Asn | Pro | Asn | Leu | Ser | Arg | Asp | Asp | Lys | Arg | Ala | Glu | Leu | Ala | Gln | | | | | | | | | | | | | | |
| | | | | | | | | | | 1060 | | | | 1065 | | | | 1070 | | | | | | | | | | | |
| Gln | Ala | Val | Phe | Thr | Tyr | Gly | Ala | Ser | Thr | Met | Ala | Thr | Gly | Ala | Glu | | | | | | | | | | | | | | |
| | | | | | | | | | | 1075 | | | | 1080 | | | | 1085 | | | | | | | | | | | |
| Arg | Glu | Gln | Leu | Lys | Ala | Asp | Thr | Gln | Lys | Ile | Leu | Asn | Glu | Leu | Gly | | | | | | | | | | | | | | |
| | | | | | | | | | | 1090 | | | | 1095 | | | | 1100 | | | | | | | | | | | |
| Asn | Tyr | Asn | Val | Asn | Trp | Ser | Met | Asn | Asp | Val | Lys | Ser | Ile | His | Ser | | | | | | | | | | | | | | |
| | | | | | | | | | | 1105 | | | | 1110 | | | | 1115 | | | | 1120 | | | | | | | |
| Ser | Phe | Asn | Thr | His | Asn | Arg | Ala | Asp | Gly | Ser | Leu | Glu | Ser | Val | Val | | | | | | | | | | | | | | |
| | | | | | | | | | | 1125 | | | | 1130 | | | | 1135 | | | | | | | | | | | |
| Arg | Ala | Asn | Leu | Gly | Glu | Gly | Gly | Ser | Gly | Gly | Gly | Leu | Val | Gly | Asn | | | | | | | | | | | | | | |
| | | | | | | | | | | 1140 | | | | 1145 | | | | 1150 | | | | | | | | | | | |
| Arg | Thr | Gln | Thr | Val | Thr | Asp | Arg | Leu | Val | Gly | Glu | Lys | Ile | Glu | Ala | | | | | | | | | | | | | | |
| | | | | | | | | | | 1155 | | | | 1160 | | | | 1165 | | | | | | | | | | | |
| Asn | Thr | Glu | Arg | Gly | Ala | Ile | Ser | Gly | Ala | Leu | Leu | Gly | Gly | Gln | Gln | | | | | | | | | | | | | | |
| | | | | | | | | | | 1170 | | | | 1175 | | | | 1180 | | | | | | | | | | | |
| Phe | Val | Ser | Asp | Thr | Leu | Thr | Ser | Val | Gly | Ala | Lys | Pro | Val | Asn | Glu | | | | | | | | | | | | | | |
| | | | | | | | | | | 1185 | | | | 1190 | | | | 1195 | | | | 1200 | | | | | | | |
| Met | Leu | Thr | Gly | Ala | Gly | Ile | Leu | Gln | Thr | Gln | Thr | Ser | Ile | Ala | Asn | | | | | | | | | | | | | | |
| | | | | | | | | | | 1205 | | | | 1210 | | | | 1215 | | | | | | | | | | | |
| Asp | Ala | Ser | Asn | Pro | Ala | Asn | Met | Pro | Asp | Ser | Leu | Gln | Gly | Lys | Val | | | | | | | | | | | | | | |
| | | | | | | | | | | 1220 | | | | 1225 | | | | 1230 | | | | | | | | | | | |
| Leu | Asn | His | Met | Gln | Met | Ser | Asp | Gly | Val | Ala | Ala | Val | Ser | Asp | Arg | | | | | | | | | | | | | | |
| | | | | | | | | | | 1235 | | | | 1240 | | | | 1245 | | | | | | | | | | | |
| Tyr | Gln | Ser | Ile | Ser | Ser | Asp | Gly | Val | Ser | Thr | Tyr | Ala | Asn | Ala | Ala | | | | | | | | | | | | | | |
| | | | | | | | | | | 1250 | | | | 1255 | | | | 1260 | | | | | | | | | | | |
| Gln | Asn | Ser | Glu | Arg | Ala | Ile | Arg | Gln | Gln | Leu | Thr | Asp | Asp | Pro | Arg | | | | | | | | | | | | | | |
| | | | | | | | | | | 1265 | | | | 1270 | | | | 1275 | | | | 1280 | | | | | | | |
| Phe | Gly | Pro | Gln | Lys | Ala | Asp | Glu | Phe | Ile | Gln | Tyr | Met | Lys | Ser | Glu | | | | | | | | | | | | | | |
| | | | | | | | | | | 1285 | | | | 1290 | | | | 1295 | | | | | | | | | | | |

Leu Ser Asn Thr Asn Glu Pro Tyr Gln Ser Arg Val Asp Lys Ala Asp
 1300 1305 1310
 Gln Trp Leu Asn Glu Asn Lys Lys
 1315 1320

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<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 7252

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 Ser Val Thr Ser Arg Ile Gln Pro Gly Ser Asp Val Ile Val Cys Ala
 35 40 45
 Glu Met Asp Glu Gln Trp Gly Tyr Val Gly Ala Lys Ser Arg Gln Arg
 50 55 60
 Trp Leu Phe Tyr Ala Tyr Asp Arg Leu Arg Lys Thr Val Val Ala His
 65 70 75 80
 Val Phe Gly Glu Arg Thr Met Ala Thr Leu Gly Arg Leu Met Ser Leu
 85 90 95
 Leu Ser Pro Phe Asp Val Val Ile Trp Met Thr Asp Gly Trp Pro Leu
 100 105 110
 Tyr Glu Ser Arg Leu Lys Gly Lys Leu His Val Ile Ser Lys Arg Tyr
 115 120 125
 Thr Gln Arg Ile Glu Arg His Asn Leu Asn Leu Arg Gln His Leu Ala
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 Arg Leu Gly Arg Lys Ser Leu Ser Phe Ser Lys Ser Val Glu Leu His
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 Asp Lys Val Ile Gly His Tyr Leu Asn Ile Lys His Tyr Gln
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<210> 7253

<211> 151

<212> PRT

<213> Enterobacter cloacae

<400> 7253

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 Phe Trp Pro His Leu Leu Leu Gly Met Val Ala Ala Ser Leu Gly Leu
 35 40 45
 Pro Val Leu Ser Asn Ser Ala Asp Ala Ala Thr Pro Ala Arg Ser Thr
 50 55 60
 Thr Thr Lys His Asp Leu Thr Thr Arg Val Asn Phe Thr Asn Leu Ala
 65 70 75 80
 Trp Leu Glu Ala Ser Arg Arg Leu Asn Phe Ser Val Asp Tyr Trp Gln
 85 90 95
 Gln His Ala Asn Pro Thr Val Asn Arg His Leu Ser Phe Ala Arg Ala
 100 105 110
 Pro Thr Arg Met Leu Val Ala Glu Lys Asn Leu Pro Val Gln Ala Gln
 115 120 125
 His Leu Gly Leu Val Gln Ser Pro Asn Ala Ala Leu Asn Pro Gly Asn
 130 135 140
 Gln Pro Ala Ile Glu Pro
 145 150

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 <211> 71
 <212> PRT
 <213> Enterobacter cloacae

<400> 7254
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 His Asn Ile Ile Gly Ala Phe Thr Ala Phe Lys Ser Gly His Ala Leu
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 Asn Asn Lys Leu Leu Gln Ala Val Leu Ala Lys Gln Glu Ala Trp Glu
 35 40 45
 Tyr Val Thr Phe Glu Asp Glu Ala Glu Leu Pro Leu Ala Phe Lys Ala
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 Pro Thr Met Val Leu Ala
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 Ala Leu Asp Gln Thr Ile Val Ser Thr Ala Leu Pro Thr Ile Val Gly
 35 40 45
 Glu Leu Gly Gly Leu Asp Lys Leu Ser Trp Val Val Thr Ala Tyr Ile
 50 55 60
 Leu Ser Ser Thr Ile Val Val Pro Leu Tyr Gly Lys Phe Gly Asp Leu
 65 70 75 80
 Phe Gly Arg Lys Ile Val Leu Gln Ile Ala Ile Val Leu Phe Leu Val
 85 90 95
 Gly Ser Ala Leu Cys Gly Leu Ala Gln Asn Met Thr Gln Leu Val Leu
 100 105 110
 Met Arg Ala Leu Gln Gly Leu Gly Gly Gly Leu Met Val Ile Ser
 115 120 125
 Met Ala Ala Val Ala Asp Val Ile Pro Pro Ala Asp Arg Gly Arg Tyr
 130 135 140
 Gln Gly Leu Phe Gly Gly Val Phe Gly Leu Ala Thr Val Ile Gly Pro
 145 150 155 160
 Leu Ile Gly Gly Phe Ile Val Gln His Ala Ser Trp Arg Trp Ile Phe
 165 170 175
 Tyr Ile Asn Leu Pro Leu Gly Leu Phe Ala Leu Leu Val Ile Gly Ala
 180 185 190
 Val Phe His Gly Ser Ala Arg Arg Ser Lys His Glu Ile Asp Tyr Leu
 195 200 205
 Gly Ala Ile Tyr Leu Ser Met Ala Leu Leu Cys Ile Ile Leu Phe Thr
 210 215 220
 Thr Glu Gly Gly Thr Ile Arg Gln Trp Ser Asp Pro Gln Leu Trp Cys
 225 230 235 240
 Ile Leu Ala Phe Gly Leu Thr Gly Ile Ala Gly Phe Ile Tyr Glu Glu
 245 250 255
 Arg Leu Ala Trp Glu Pro Ile Ile Pro Leu Ser Leu Phe Arg Asp Arg
 260 265 270
 Ser Phe Leu Leu Cys Ser Leu Ile Gly Phe Ile Ile Gly Met Ser Leu
 275 280 285
 Phe Gly Ser Val Thr Phe Leu Pro Leu Tyr Leu Gln Val Val Lys Asp
 290 295 300

Ala Thr Pro Thr Gln Ala Gly Leu Gln Leu Ile Pro Leu Met Gly Gly
 305 310 315 320
 Leu Leu Leu Thr Ser Ile Ile Ser Gly Arg Ile Ile Ser Arg Thr Gly
 325 330 335
 Lys Tyr Arg Leu Phe Pro Ile Leu Gly Thr Leu Leu Gly Val Val Gly
 340 345 350
 Met Met Leu Leu Thr Arg Ile Ser Ile Thr Ser Pro Thr Trp Gln Leu
 355 360 365
 Tyr Leu Phe Thr Gly Val Leu Gly Met Gly Leu Gly Leu Val Met Gln
 370 375 380
 Val Leu Val Leu Ala Val Gln Asn Ser Val Ser Ala Asp Gln Tyr Gly
 385 390 395 400
 Val Ala Thr Ser Gly Val Thr Leu Phe Arg Ser Ile Gly Gly Ala Ile
 405 410 415
 Gly Val Ala Leu Phe Gly Ala Val Phe Thr His Ile Leu Gln Ser Gly
 420 425 430
 Leu Ile Asp Arg Leu Pro Glu Gly Ala Glu Leu Pro Arg Glu Leu Asn
 435 440 445
 Pro Val Ala Ile His His Leu Pro Asp Ala Leu Arg Leu Asp Tyr Leu
 450 455 460
 Asp Ala Phe Gly Ser Ala Ile His Ala Val Phe Met Leu Ala Ala Glu
 465 470 475 480
 Ile Met Val Leu Ala Phe Val Leu Ser Trp Phe Leu Arg Glu Ala Pro
 485 490 495
 Leu Arg Arg Gln Ala
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<210> 7256

<211> 154

<212> PRT

<213> Enterobacter cloacae

<400> 7256

Ala Val Arg Tyr Ser Asp Cys Ala Glu Asn Lys Glu Arg Phe Met His
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 Leu Ser Ile Thr Asp Lys Val Thr Ala Glu Glu Lys Glu Glu Leu Leu
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 Thr Gly Leu Arg Ala Tyr Asn Ala Gln Tyr Leu Asp Leu Ala Thr Phe
 35 40 45
 Ser Gly Asp Ile Gly Val Tyr Met Arg Asp Asp Asn Gly Val Met Leu
 50 55 60
 Gly Gly Leu Ile Gly Val Arg Lys Gly Asp Trp Leu Asn Ile Asp Tyr
 65 70 75 80
 Leu Trp Val Ser Asp Ser Val Arg Gly Thr Gly Val Gly Ser Gln Leu
 85 90 95
 Ile Lys Thr Ala Glu Glu Glu Ala Arg Arg Lys Gly Cys Arg His Ala
 100 105 110
 Leu Val Asp Thr Val Ser Phe Gln Ala Arg Pro Phe Tyr Glu Lys Gln
 115 120 125
 Gly Tyr Gln Val Gln Met Ser Leu Gln Asp Tyr Pro Tyr Gln Gly Met
 130 135 140
 Gln Arg His Tyr Leu Ser Lys Asn Leu
 145 150

<210> 7257

<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 7257

Gln Gly Arg Glu Met Ser Thr Ile Asn Asp Val Ser Arg Leu Ala Gly

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Val | Ser | Lys | Ala | Thr | Val | Ser | Arg | Val | Leu | Ser | Gly | Ser | Arg | Gly | Val | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Lys | Glu | Ala | Ser | Arg | Gln | Ala | Val | Leu | Lys | Ala | Val | Asp | Glu | Leu | Asn | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Tyr | Arg | Pro | Asn | Val | Ile | Ala | Gln | Ser | Leu | Leu | Ser | Gln | Ser | Thr | Gly | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Cys | Ile | Gly | Val | Ile | Cys | Ala | Gln | Glu | Asn | Ile | Asn | Gln | Thr | Thr | Gly | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Tyr | Leu | Tyr | Ala | Leu | Glu | Lys | His | Leu | Ser | Gln | His | Gln | Lys | His | Leu | | |
| | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Leu | Leu | Arg | Phe | Ala | His | Thr | Lys | Thr | Glu | Val | Met | Asn | Ala | Leu | Glu | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Glu | Leu | Ser | Cys | Gly | Leu | Cys | Asp | Asp | Ile | Leu | Val | Ile | Gly | Ala | Arg | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Phe | Pro | Leu | Asp | Val | Asp | Met | Asp | Asn | Val | Ile | Leu | Val | Asp | Cys | Met | | |
| | 130 | | | | | 135 | | | | | | 140 | | | | | |
| Glu | Ala | Asp | Asn | Ala | Asn | Ser | Ile | Gln | Phe | Asp | His | Ala | Phe | Ala | Ala | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Glu | Thr | Ala | Cys | Asn | Tyr | Leu | Thr | Ser | Gln | Gly | Arg | Arg | Gln | Ile | Ala | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Leu | Ile | His | Pro | His | Gly | Ser | Gly | Phe | Ala | Asp | Gln | Val | Leu | Leu | Gly | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Tyr | Lys | His | Ala | Leu | Glu | Lys | Asn | Phe | Leu | Pro | Phe | Asn | Arg | Asn | Leu | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Val | Phe | Met | Asp | Ala | Thr | Ser | Ser | Ser | Val | Ala | Leu | Gln | Glu | Leu | Leu | | |
| | 210 | | | | | 215 | | | | | | 220 | | | | | |
| Asn | Asn | Ala | Ser | Thr | Leu | Asn | Phe | Asn | Ala | Leu | Leu | Val | Ala | Asp | Glu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Gln | Glu | Ala | Gln | Arg | Val | Ile | Pro | Gln | Leu | Gln | Ala | Phe | Asn | Lys | Ser | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Val | Pro | Glu | Asp | Ile | Met | Val | Phe | Ser | Leu | Gly | Gly | Ser | Leu | His | Leu | | |
| | | 260 | | | | | | 265 | | | | | 270 | | | | |
| Pro | Gly | Ile | Pro | Val | Ile | Pro | Ala | Ile | Glu | Tyr | Ser | Met | Asp | Ala | Met | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | |
| Ala | Ala | Arg | Ile | Val | Ser | Trp | Leu | Thr | Glu | Lys | Thr | Gln | Met | Leu | Gly | | |
| | 290 | | | | | 295 | | | | 300 | | | | | | | |
| Ser | Tyr | Val | Leu | Arg | Gly | Asp | Leu | Ile | Ile | Pro | Asp | Val | Arg | Lys | Arg | | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | | |

<210> 7258

<211> 224

<212> PRT

<213> Enterobacter cloacae

<400> 7258

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ile | Arg | Ser | Arg | Asp | Thr | Val | Thr | Met | Pro | Ala | Gln | Lys | Asp | Asn | Ser | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Glu | Pro | Arg | Arg | Pro | Gly | Arg | Pro | Arg | Gly | Gly | Lys | Arg | Val | Thr | Ala | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Ser | Arg | Glu | Gln | Leu | Leu | Asp | Ile | Ala | Leu | Asn | Leu | Phe | Ser | Arg | Gln | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Gly | Ile | Ala | Asn | Thr | Ser | Leu | Asn | Ala | Ile | Ala | Arg | Glu | Ala | Gly | Val | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Thr | Pro | Ala | Met | Leu | His | Tyr | Tyr | Phe | Asn | Ser | Arg | Glu | Gln | Leu | Leu | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Asp | Ala | Met | Ile | Glu | Glu | Arg | Phe | Leu | Pro | Leu | Arg | Glu | Arg | Ile | Gly | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Ala | Ile | Phe | Ala | Asp | Asn | Arg | Asp | Ser | Pro | Val | Asp | Ala | Leu | Thr | Glu | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Met | Val | Arg | Val | Leu | Ala | Glu | Leu | Ala | Glu | Lys | Tyr | Arg | Trp | Phe | Ala | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Pro | Leu | Trp | Met | Gln | Glu | Val | Ile | Gly | Glu | Met | Pro | Val | Leu | Arg | Thr | | |
| | | 130 | | | | 135 | | | | | | 140 | | | | | |
| His | Leu | Gln | Ala | Arg | Phe | Gly | Asp | Glu | Lys | Tyr | His | Thr | Thr | Leu | Ala | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Thr | Ile | Lys | Gly | Trp | Gln | Gln | Glu | Gly | Lys | Leu | Asn | Pro | Ala | Leu | Ala | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | |
| Pro | Glu | Leu | Leu | Phe | Thr | Thr | Leu | Leu | Ser | Leu | Val | Leu | Val | Pro | Phe | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ser | Arg | Met | Arg | Asn | Asp | Glu | Arg | Leu | Ser | Ala | Leu | Ser | Pro | Glu | Ile | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Val | Val | Arg | His | Val | Leu | Ala | Val | Ile | Gly | Thr | Gly | Ile | Gly | Gly | | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |

<210> 7259

<211> 1047

<212> PRT

<213> Enterobacter cloacae

<400> 7259

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Arg | Asp | Glu | Asn | Gln | Arg | Arg | Lys | Arg | Leu | Met | Phe | Ser | Arg | Phe | Phe | | |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | | | |
| Val | Arg | Arg | Pro | Val | Phe | Ala | Trp | Val | Ile | Ala | Ile | Leu | Ile | Met | Leu | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Ala | Gly | Ile | Leu | Ala | Ile | Arg | Thr | Leu | Pro | Val | Ala | Gln | Tyr | Pro | Asp | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Val | Ala | Pro | Pro | Ser | Ile | Lys | Ile | Ser | Ala | Thr | Tyr | Thr | Gly | Ala | Ser | | |
| | | 50 | | | | 55 | | | | | 60 | | | | | | |
| Ala | Gln | Thr | Leu | Glu | Asn | Ser | Val | Thr | Gln | Val | Ile | Glu | Gln | Gln | Leu | | |
| | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Thr | Gly | Leu | Asp | Asn | Leu | Leu | Tyr | Phe | Thr | Ser | Thr | Ser | Ser | Ser | Asp | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Gly | Ser | Val | Ser | Ile | Asn | Val | Thr | Phe | Glu | Gln | Gly | Thr | Asp | Pro | Asp | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Thr | Ala | Gln | Val | Gln | Val | Gln | Asn | Lys | Val | Gln | Gln | Ala | Glu | Ser | Arg | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Pro | Thr | Glu | Val | Gln | Gln | Ser | Gly | Ile | Thr | Val | Glu | Lys | Ser | Gln | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Ser | Asn | Phe | Leu | Leu | Ile | Met | Gly | Val | Tyr | Asp | Lys | Thr | Asp | Thr | Ala | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Ser | Ser | Ser | Asp | Ile | Ala | Asp | Trp | Leu | Val | Ser | Asn | Met | Gln | Asp | Pro | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Leu | Ala | Arg | Val | Asp | Gly | Val | Gly | Ser | Leu | Gln | Val | Phe | Gly | Ala | Glu | | |
| | | | 180 | | | | 185 | | | | | | 190 | | | | |
| Tyr | Ala | Met | Arg | Ile | Trp | Leu | Asp | Pro | Ala | Lys | Leu | Ala | Ser | Tyr | Ser | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Met | Pro | Ser | Asp | Val | Gln | Ser | Ala | Ile | Glu | Ala | Gln | Asn | Val | Gln | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Val | Ser | Ala | Gly | Lys | Ile | Gly | Ala | Leu | Pro | Ser | Ser | Asn | Ala | Gln | Gln | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Leu | Thr | Ala | Thr | Val | Arg | Ala | Gln | Ser | Arg | Leu | Gln | Thr | Val | Asp | Glu | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Phe | Lys | Lys | Ile | Ile | Val | Lys | Ser | Gln | Ser | Asn | Gly | Ala | Val | Val | Arg | | |
| | | | 260 | | | | 265 | | | | | 270 | | | | | |
| Ile | Ser | Asp | Val | Ala | Arg | Val | Glu | Met | Gly | Ser | Glu | Asp | Tyr | Thr | Ala | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Thr | Ala | Lys | Leu | Asn | Gly | His | Pro | Ala | Ala | Gly | Met | Ala | Val | Met | Leu | | |
| | | 290 | | | | 295 | | | | | 300 | | | | | | |
| Ser | Pro | Gly | Ala | Asn | Ala | Leu | Asn | Thr | Ala | Thr | Ala | Val | Lys | Asp | Lys | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 305 | | | | | 310 | | | | | | | | 320 | | | |
| Ile | Ala | Glu | Phe | Lys | Lys | Ser | Met | Pro | Glu | Gly | Tyr | Asp | Val | Ala | Tyr | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Pro | Lys | Asp | Ser | Thr | Glu | Phe | Ile | Lys | Ile | Ser | Val | Glu | Asp | Val | Ile | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Gln | Thr | Leu | Phe | Glu | Ala | Ile | Ile | Leu | Val | Val | Val | Val | Met | Tyr | Leu | |
| | | 355 | | | | 360 | | | | | | 365 | | | | |
| Phe | Leu | Gln | Asn | Ile | Arg | Ala | Thr | Leu | Ile | Pro | Ala | Leu | Ala | Val | Pro | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Val | Val | Leu | Leu | Gly | Thr | Phe | Gly | Val | Leu | Ala | Leu | Phe | Gly | Tyr | Ser | |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 | |
| Ile | Asn | Thr | Leu | Thr | Leu | Phe | Ala | Met | Val | Leu | Ala | Ile | Gly | Leu | Leu | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Val | Asp | Asp | Ala | Ile | Val | Val | Val | Glu | Asn | Val | Glu | Arg | Ile | Met | Arg | |
| | | 420 | | | | | | 425 | | | | | 430 | | | |
| Asp | Glu | Gly | Leu | Pro | Ala | Arg | Glu | Ala | Thr | Glu | Lys | Ser | Met | Gly | Glu | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Ile | Ser | Gly | Ala | Leu | Ile | Ala | Ile | Ala | Leu | Val | Leu | Ser | Ala | Val | Phe | |
| | 450 | | | | | 455 | | | | | 460 | | | | | |
| Leu | Pro | Met | Ala | Phe | Phe | Gly | Gly | Ser | Thr | Gly | Val | Ile | Tyr | Arg | Gln | |
| 465 | | | | 470 | | | | | | 475 | | | | | 480 | |
| Phe | Ser | Val | Thr | Ile | Ile | Ser | Ala | Met | Phe | Leu | Ser | Val | Val | Val | Ala | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Leu | Thr | Leu | Thr | Pro | Ala | Leu | Cys | Gly | Ser | Ile | Leu | Asn | His | Thr | Ala | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Pro | His | Lys | Lys | Gly | Phe | Phe | Gly | Ala | Phe | Asn | Arg | Phe | Tyr | Ser | Lys | |
| | | 515 | | | | | 520 | | | | | 525 | | | | |
| Thr | Glu | His | Ser | Tyr | Gln | Asn | Lys | Val | Leu | Arg | Ala | Leu | Arg | Arg | Ser | |
| | 530 | | | | | 535 | | | | | 540 | | | | | |
| Gly | Gly | Met | Leu | Val | Ile | Tyr | Ala | Leu | Leu | Cys | Gly | Ala | Met | Gly | Phe | |
| 545 | | | | 550 | | | | | | 555 | | | | | 560 | |
| Ala | Met | Leu | Lys | Leu | Pro | Gly | Ser | Phe | Leu | Pro | Thr | Glu | Asp | Gln | Gly | |
| | | | | 565 | | | | | 570 | | | | | 575 | | |
| Glu | Ile | Met | Val | Gln | Tyr | Thr | Leu | Pro | Ala | Gly | Ala | Thr | Ala | Val | Arg | |
| | | | 580 | | | | | 585 | | | | | 590 | | | |
| Thr | Ala | Glu | Val | Ser | Arg | Gln | Val | Arg | Glu | Trp | Phe | Leu | Thr | Lys | Glu | |
| | | 595 | | | | 600 | | | | | | 605 | | | | |
| Lys | Ala | Asn | Thr | Asn | Val | Ile | Phe | Thr | Ile | Glu | Gly | Phe | Ser | Phe | Ser | |
| | 610 | | | | | 615 | | | | | 620 | | | | | |
| Gly | Ser | Gly | Gln | Asn | Ala | Gly | Met | Ala | Phe | Val | Ser | Leu | Lys | Asn | Trp | |
| 625 | | | | 630 | | | | | | 635 | | | | | 640 | |
| Ser | Glu | Arg | Lys | Gly | Asp | Glu | Asn | Thr | Ala | Gln | Ala | Ile | Ala | Leu | Arg | |
| | | | | 645 | | | | | 650 | | | | | 655 | | |
| Ala | Thr | Gln | Glu | Leu | Ser | Thr | Ile | Arg | Asp | Ala | Thr | Ile | Phe | Ala | Met | |
| | | | 660 | | | | | 665 | | | | | | | | |

Ser Thr Met Thr Pro Phe Ser Ala Phe Ala Thr Thr Arg Trp Glu Tyr
 805 810
 Gly Pro Glu Ser Leu Val Arg Tyr Asn Gly Ser Ala Ala Tyr Glu Ile
 820 825 830
 Gln Gly Glu Asn Ala Ser Gly Ala Ser Ser Gly Thr Ala Met Ser Lys
 835 840 845
 Met Glu Gln Leu Ala Asn Ser Leu Pro Ser Gly Ser Thr Trp Ala Trp
 850 855 860
 Ser Gly Leu Ser Leu Gln Glu Lys Leu Ala Ser Gly Gln Ala Met Ser
 865 870 875 880
 Leu Tyr Ala Leu Ser Ile Leu Val Val Phe Leu Cys Leu Ala Ala Leu
 885 890 895
 Tyr Glu Ser Trp Ser Val Pro Ile Ser Val Ile Met Val Ile Pro Leu
 900 905 910
 Gly Val Leu Gly Ala Ala Val Ala Ala Ser Leu Arg Gly Leu Asn Asn
 915 920 925
 Asp Val Tyr Phe Gln Val Ala Leu Leu Thr Thr Ile Gly Leu Ser Ser
 930 935 940
 Lys Asn Ala Ile Leu Ile Val Glu Phe Ala Glu Ala Lys Val Ala Glu
 945 950 955 960
 Gly Tyr Ser Leu Thr Arg Ala Ala Leu Arg Ala Ala Gln Thr Arg Leu
 965 970 975
 Arg Pro Ile Ile Met Thr Ser Leu Ala Phe Ile Ala Gly Val Thr Pro
 980 985 990
 Leu Ala Ile Ala Thr Gly Ala Gly Ala Asn Ser Arg Val Ala Ile Gly
 995 1000 1005
 Thr Gly Ile Ile Gly Gly Thr Leu Ala Ala Thr Leu Leu Ala Ile Phe
 1010 1015 1020
 Phe Val Pro Leu Phe Phe Val Leu Val Lys Arg Leu Phe Ser Gly Lys
 1025 1030 1035 1040
 His Ala Asn Arg Arg Ser
 1045

<210> 7260

<211> 388

<212> PRT

<213> Enterobacter cloacae

<400> 7260

Ile Pro Met Ala Lys Val Ser Phe Ser Phe Ala Ala Ile Leu Gly Leu
 1 5 10 15
 Leu Thr Ala Ile Gly Pro Leu Cys Ser Asp Phe Tyr Leu Pro Ala Leu
 20 25 30
 Pro Glu Ile Ala Thr Gln Leu Asn Thr Ser Thr Thr Leu Thr Gln Leu
 35 40 45
 Ser Leu Thr Ser Ala Leu Ile Gly Leu Gly Leu Gly Gln Leu Phe Phe
 50 55 60
 Gly Pro Leu Ser Asp Arg Ile Gly Arg Lys Thr Pro Leu Leu Phe Ser
 65 70 75 80
 Leu Leu Leu Phe Val Leu Ala Ser Val Leu Cys Ala Ser Thr Gln Asn
 85 90 95
 Ile Tyr Ala Leu Ile Gly Trp Arg Phe Val Gln Gly Val Ala Gly Ala
 100 105 110
 Gly Gly Ser Val Leu Ala Arg Ser Ile Ala Arg Asp Asn Tyr His Gly
 115 120 125
 Thr Met Leu Thr Gln Phe Phe Ala Leu Leu Met Thr Val Asn Gly Ile
 130 135 140
 Ala Pro Val Val Ser Pro Val Leu Gly Gly Tyr Ile Ala Ser His Phe
 145 150 155 160
 Asp Trp Arg Met Leu Phe Trp Val Met Ala Gly Ala Gly Leu Ala Leu
 165 170 175

Leu Ile Ala Ser Gln Leu Phe Ile Arg Glu Ser Leu Thr Glu Lys Gln
 180 185 190
 Gly Arg Gly Ser Leu Thr Gln Thr Ala Arg Thr Val Leu Lys Asn Arg
 195 200 205
 Arg Phe Met Arg Tyr Cys Leu Ile Gln Ala Phe Met Leu Ala Gly Leu
 210 215 220
 Phe Ala Tyr Ile Gly Ala Ser Ser Phe Val Met Gln Asn Glu Tyr Gly
 225 230 235 240
 Leu Ser Ala Met Gln Phe Ser Leu Leu Phe Gly Val Asn Gly Ile Gly
 245 250 255
 Leu Ile Val Ser Ala Leu Ile Phe Ser Arg Leu Ala Arg Arg His Leu
 260 265 270
 Ala Glu Arg Leu Met Arg Thr Gly Leu Val Leu Ala Leu Ser Cys Ala
 275 280 285
 Gly Leu Thr Leu Leu Phe Ala Trp Met Gln Leu Ser Val Pro Ala Leu
 290 295 300
 Val Ala Leu Phe Phe Thr Val Ala Phe Asn Ser Gly Ile Ser Thr Ile
 305 310 315 320
 Ala Gly Ser Glu Ala Met Ser Ala Val Asp Thr Lys Glu Ser Gly Thr
 325 330 335
 Ala Ser Ala Ile Leu Gly Met Leu Met Phe Leu Phe Gly Gly Ile Ala
 340 345 350
 Ala Pro Leu Ala Gly Ile Gly Gly Glu Thr Met Leu Lys Met Ser Leu
 355 360 365
 Ala Val Leu Val Ser Tyr Gly Ile Ala Leu Ala Ile Gly Tyr Arg Thr
 370 375 380
 Gln Asn Ala
 385

<210> 7261

<211> 109

<212> PRT

<213> Enterobacter cloacae

<400> 7261

Gly Trp Leu Ser Met Phe Lys Ile Met Leu Cys Cys Ser Ala Gly Met
 1 5 10 15
 Ser Thr Ser Leu Val Ser Lys Met Ile Asp Val Ala Lys Glu Arg
 20 25 30
 Gly Leu Pro Val Lys Ile Asp Ala Tyr Gly Val Ser Glu Phe Asp Thr
 35 40 45
 Gln Phe Pro His Tyr Gln Val Val Leu Leu Gly Pro Gln Val Lys Tyr
 50 55 60
 Met Leu Lys Thr Leu Ser Asp Lys Ala Ala Thr Gln Gly Ile Pro Val
 65 70 75 80
 Gln Pro Ile Asp Met Met Asp Tyr Gly Met Gln Arg Gly Asp Lys Val
 85 90 95
 Leu Asp Tyr Ala Leu Ser Leu Ile Glu Ala Ala His
 100 105

<210> 7262

<211> 192

<212> PRT

<213> Enterobacter cloacae

<400> 7262

Pro Thr Met Ser Thr Lys Leu Glu Glu Arg Gln Lys Leu Arg Gln Asp
 1 5 10 15
 Glu Ile Ile Thr Ala Ala Arg Arg Cys Phe Arg Ala Ser Gly Phe His
 20 25 30
 Ala Ala Ser Met Ser Gln Ile Ala Ser Glu Ala Arg Leu Ser Val Gly

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 35 | | | | | 40 | | | | 45 | | | | | |
| Gln | Ile | Tyr | Arg | Tyr | Phe | Ser | Asn | Lys | Asp | Ala | Ile | Ile | Glu | Glu | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Arg | Arg | Ile | Ile | Asp | Ser | Arg | Ile | Glu | Glu | Met | Gln | Gly | Lys | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Val | Glu | Gly | Met | Pro | Gln | Ala | Leu | Ala | Trp | Arg | Gln | Thr | Leu | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Asp | Asp | Asp | Ala | Leu | Met | Leu | Glu | Met | Ser | Ala | Glu | Ala | Thr | Arg |
| | | | | 100 | | | | 105 | | | | | 110 | | |
| Asn | Pro | Leu | Val | Ala | Asn | Met | Leu | Ile | Glu | Ala | Glu | Ala | Arg | Met | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Asn | Ala | Cys | Glu | His | Leu | Lys | Lys | Gln | Phe | Pro | His | Leu | Ser | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | His | Ile | Arg | Cys | Cys | Val | Glu | Ile | Thr | Ala | Val | Met | Ile | Glu | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Thr | Ile | Tyr | Arg | Arg | Leu | Thr | Pro | Leu | Lys | Val | Pro | Ser | Glu | Gln | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Glu | Pro | Ile | Tyr | Gln | Asn | Ile | Leu | Asn | Met | Leu | Phe | Ser | Ala | Lys | |
| | | | 180 | | | | | 185 | | | | | 190 | | |

<210> 7263

<211> 385

<212> PRT

<213> Enterobacter cloacae

<400> 7263

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Arg | Leu | Arg | Ser | Pro | Trp | Lys | Lys | Ile | Met | Lys | Thr | Ile | Thr |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Thr | Ser | Ile | Ala | Ala | Leu | Leu | Leu | Leu | Thr | Gly | Cys | Asp | Asn | Ala | Gln |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Thr | Ser | Ala | Pro | Gln | Arg | Pro | Leu | Pro | Glu | Val | Gly | Ile | Val | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Ser | Gln | Pro | Val | Ser | Val | Val | Ser | Glu | Leu | Thr | Gly | Arg | Thr | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Met | Ser | Ala | Glu | Val | Arg | Pro | Gln | Val | Gly | Gly | Ile | Ile | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Arg | Leu | Phe | Thr | Glu | Gly | Asp | Thr | Val | Lys | Ala | Gly | Gln | Ala | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Tyr | Gln | Ile | Asp | Pro | Ser | Ser | Tyr | Arg | Ala | Ala | Tyr | Asn | Glu | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Leu | Lys | Gln | Ala | Gln | Ala | Leu | Val | Gln | Ala | Asp | Cys | Gln | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Arg | Arg | Tyr | Ala | Gln | Leu | Val | Lys | Asp | Asp | Gly | Val | Ser | Arg | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Ala | Glu | Asp | Ala | Lys | Ser | Thr | Cys | Ala | Gln | Asp | Lys | Ala | Ser | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Ser | Lys | Lys | Ala | Ala | Leu | Glu | Ser | Ala | Arg | Ile | Asn | Leu | Asn | Trp |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Thr | Thr | Val | Thr | Ala | Pro | Ile | Ala | Gly | Arg | Ile | Gly | Ile | Ser | Ser | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Pro | Gly | Ala | Leu | Val | Thr | Thr | Gln | Gln | Asp | Thr | Ala | Leu | Ala | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ile | Arg | Gly | Leu | Asp | Ser | Met | Tyr | Val | Asp | Leu | Thr | Arg | Ser | Ser | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Leu | Leu | Arg | Leu | Arg | Lys | Gln | Thr | Leu | Ala | Ser | Asn | Ser | Asp | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Asn | Val | Ser | Leu | Ile | Leu | Glu | Asp | Gly | Ser | Ser | Tyr | Ser | Glu | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | His | Leu | Ala | Leu | Thr | Glu | Val | Ala | Val | Asp | Glu | Ser | Thr | Gly | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Thr | Leu | Arg | Ala | Val | Phe | Pro | Asn | Pro | Gln | His | Gln | Leu | Leu | Pro |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| | 275 | | 280 | | 285 |
| Gly Met Phe Val Arg Ala Arg Val Asp Glu Gly Ile Met Asn Asp Ala | | | | | |
| 290 | | 295 | | 300 | |
| Ile Leu Ala Pro Gln Gln Gly Ile Thr Arg Asp Ala Lys Gly Thr Ala | | | | | |
| 305 | | 310 | | 315 | |
| Thr Ala Leu Val Val Asn Ala Ser Asn Lys Val Glu Gln Arg Gln Leu | | | | | |
| | 325 | | 330 | | 335 |
| Glu Thr Gly Asp Thr Tyr Gly Asp Lys Trp Leu Val Leu Ser Gly Leu | | | | | |
| | 340 | | 345 | | 350 |
| Lys Ala Gly Asp Lys Leu Ile Val Glu Gly Thr Asp Lys Val Thr Ala | | | | | |
| | 355 | | 360 | | 365 |
| Gly Gln Glu Val Lys Ala Glu Glu Met Lys Thr Asn Gly Gly Asn Ala | | | | | |
| 370 | | 375 | | 380 | |

385

<210> 7264

<211> 462

<212> PRT

<213> Enterobacter cloacae

<400> 7264

| | | | | | |
|---|-----|-----|-----|--|--|
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| 1 | 5 | 10 | 15 | | |
| Ala Leu Leu Ser Ala Gly Cys Val Ser Leu Asp Pro Thr Tyr Gln Arg | | | | | |
| | 20 | 25 | 30 | | |
| Pro Asp Ala Pro Val Pro Thr Thr Leu Pro Gly Ala His Gly Glu Ala | | | | | |
| | 35 | 40 | 45 | | |
| Asn Ala Val Val Ser Gln Trp Gln Gln Val Met Asn Asp Ala Arg Leu | | | | | |
| | 50 | 55 | 60 | | |
| Lys Ser Val Val Thr Met Ala Leu Asn Ser Asn Arg Asp Val Gln Lys | | | | | |
| 65 | 70 | 75 | 80 | | |
| Ala Ile Ala Asp Ile Asp Ala Ala Arg Ala Gln Tyr Gly Glu Thr Arg | | | | | |
| | 85 | 90 | 95 | | |
| Ser Ser Leu Phe Pro Thr Val Asp Ala Glu Leu Ser His Thr Arg Ser | | | | | |
| | 100 | 105 | 110 | | |
| Arg Thr Leu Ala Ser Gly Val Ala Thr Ser Asp Glu Ala Asn Gly Ala | | | | | |
| | 115 | 120 | 125 | | |
| Val Ser Ser Phe Glu Leu Asp Leu Phe Gly Arg Asn Gln Ser Leu Ser | | | | | |
| | 130 | 135 | 140 | | |
| Arg Ala Ala Arg Glu Thr Trp Leu Ala Ser Glu Phe Thr Ala Gln Asn | | | | | |
| 145 | 150 | 155 | 160 | | |
| Thr Arg Leu Thr Met Val Ser Glu Leu Thr Thr Ala Trp Val Thr Leu | | | | | |
| | 165 | 170 | 175 | | |
| Ala Ala Asp Asn Ser Asn Leu Ala Leu Ala Lys Ser Thr Leu Glu Ser | | | | | |
| | 180 | 185 | 190 | | |
| Ala Ala Asn Ser Leu Lys Ile Val Lys Arg Gln Gln Glu Val Gly Val | | | | | |
| | 195 | 200 | 205 | | |
| Ala Ala Ala Thr Asp Val Ser Glu Ala Met Ala Val Tyr Gln Gln Ala | | | | | |
| | 210 | 215 | 220 | | |
| Arg Ala Ser Val Ala Ser Tyr Gln Thr Leu Val Met Gln Asp Lys Asn | | | | | |
| 225 | 230 | 235 | 240 | | |
| Ala Leu Asn Leu Leu Ala Gly Asp Thr Val Pro Glu Asn Leu Leu Pro | | | | | |
| | 245 | 250 | 255 | | |
| Gly Thr Leu Glu Ser Leu Ser Asp Asn Ala Ile Thr Leu Ile Pro Ala | | | | | |
| | 260 | 265 | 270 | | |
| Gly Val Ser Ser Ser Ala Leu Leu Arg Arg Pro Asp Ile Gln Glu Ala | | | | | |
| | 275 | 280 | 285 | | |
| Glu His Asn Leu Leu Ser Ala Asn Ala Asn Ile Gly Ala Ala Arg Ala | | | | | |
| | 290 | 295 | 300 | | |
| Asn Phe Phe Pro Thr Ile Ser Leu Thr Ala Ser Ala Gly Val Gly Ser | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 305 | Asp | Ser | Leu | Ser | Ser | 310 | Leu | Phe | Ser | His | Gly | 315 | Met | Lys | Val | Trp | 320 | Ser | Phe |
| | | | | | 325 | | | | | | 330 | | | | | | 335 | | |
| Ala | Pro | Ser | Ile | Thr | Leu | Pro | Leu | Phe | Ser | Gly | Gly | Asn | Asn | Met | Ala | | | | |
| | | | 340 | | | | | 345 | | | | | | | 350 | | | | |
| Gln | Leu | Arg | Tyr | Ala | Glu | Ala | Glu | Lys | Lys | Gly | Leu | Ile | Ala | Thr | Tyr | | | | |
| | | 355 | | | | | 360 | | | | | | | 365 | | | | | |
| Glu | Lys | Thr | Ile | Gln | Ser | Ala | Phe | Lys | Asp | Val | Ala | Asp | Ala | Leu | Ala | | | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | | | |
| Arg | Arg | Glu | Thr | Leu | Ser | Glu | Gln | Leu | Asp | Ala | Gln | Arg | Glu | Tyr | Val | | | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | | | |
| Ala | Ala | Glu | Gln | Lys | Thr | Leu | Asp | Val | Ala | Thr | Arg | Ser | Tyr | Lys | Ala | | | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | | | |
| Gly | Ala | Gly | Asp | Tyr | Leu | Thr | Val | Leu | Thr | Ala | Gln | Arg | Ser | Leu | Trp | | | | |
| | | | 420 | | | | 425 | | | | | | | 430 | | | | | |
| Ser | Ala | Gln | Glu | Ser | Leu | Ile | Ala | Leu | Gln | Gln | Thr | Asp | Leu | Glu | Asn | | | | |
| | | 435 | | | | | 440 | | | | | | 445 | | | | | | |
| Arg | Ile | Thr | Leu | Trp | Gln | Ser | Leu | Gly | Gly | Gly | Ile | Gln | | | | | | | |
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<210> 7265

<211> 428

<212> PRT

<213> Enterobacter cloacae

<400> 7265

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Thr | Gly | Leu | Cys | Ser | Val | Ala | Tyr | Arg | Ser | Gly | Thr | Leu | Lys | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | His | Met | Ser | Ser | Leu | Tyr | Gln | Ser | Met | Val | Ala | Val | Ile | Glu | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ile | Thr | Pro | Leu | Ala | Ala | Lys | Leu | Gly | Gln | Gln | Lys | Tyr | Val | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ile | Arg | Asp | Gly | Phe | Thr | Ala | Ala | Leu | Pro | Phe | Met | Ile | Ile | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Phe | Met | Leu | Val | Phe | Ile | Phe | Pro | Pro | Phe | Ser | Ala | Asp | Thr | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Ser | Phe | Ala | Arg | Gly | Trp | Leu | Asp | Phe | Ser | Glu | Thr | Tyr | Arg | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Leu | Met | Leu | Pro | Phe | Asn | Leu | Ser | Met | Gly | Val | Met | Thr | Phe | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Ser | Val | Gly | Ile | Gly | Ala | Ser | Leu | Gly | Arg | Gln | Phe | Asn | Leu | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Val | Met | Ser | Gly | Leu | Leu | Ala | Phe | Met | Ala | Phe | Leu | Leu | Val | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Pro | Tyr | Ala | Asp | Gly | Lys | Ile | Ser | Thr | Gln | Tyr | Leu | Ser | Gly | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Gly | Ile | Phe | Thr | Ala | Leu | Ile | Thr | Ala | Ile | Tyr | Ser | Thr | Arg | Val | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Trp | Leu | Lys | Gln | Asn | Asn | Val | Thr | Ile | Arg | Leu | Pro | Lys | Glu | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Thr | Gly | Val | Ala | Arg | Ser | Phe | Glu | Ile | Leu | Ile | Pro | Val | Met | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Ile | Gly | Thr | Leu | His | Pro | Leu | Asn | Leu | Phe | Ile | Glu | Ala | Gln | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Met | Ile | Ile | Pro | Gln | Ala | Ile | Met | His | Leu | Leu | Glu | Pro | Leu | Val |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Ser | Ala | Ser | Asp | Ser | Leu | Pro | Ala | Ile | Leu | Leu | Ser | Val | Leu | Leu | Cys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Ile | Phe | Trp | Phe | Ala | Gly | Ile | His | Gly | Ser | Leu | Ile | Val | Thr | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Met | Asn | Pro | Phe | Trp | Met | Ala | Asn | Leu | Ser | Ala | Asn | Gln | Ala | Ala |

| | | |
|-----------------------------|-------------------------|---------------------|
| 275 | 280 | 285 |
| Leu Ala Gly Ala Ala | Leu Pro His Val Tyr | Leu Gln Gly Phe Trp |
| 290 | 295 | 300 |
| Asp His Tyr Leu Leu Ile | Gly Gly Val Gly Ser Thr | Leu Pro Leu Ala |
| 305 | 310 | 315 |
| Phe Leu Leu Leu Arg Ser Arg | Val Thr His Leu Arg Thr | Ile Gly Lys |
| 325 | 330 | 335 |
| Met Gly Val Val Pro Ser Phe | Phe Asn Ile Asn Glu Pro | Ile Leu Phe |
| 340 | 345 | 350 |
| Gly Ala Pro Ile Ile Met Asn | Pro Met Leu Phe Ile Pro | Phe Val Phe |
| 355 | 360 | 365 |
| Val Pro Leu Val Asn Ala Cys | Leu Ala Tyr Gly Ala Thr | Lys Leu Gly |
| 370 | 375 | 380 |
| Trp Leu Ala Gln Val Val Ser | Leu Thr Pro Trp Thr Thr | Pro Ala Pro |
| 385 | 390 | 395 |
| Ile Gly Ala Ser Trp Ala Ala | Asn Trp Ala Leu Ser Pro | Val Val Met |
| 405 | 410 | 415 |
| Cys Leu Ile Cys Met Val Met | Ser Ala Leu Met Tyr | |
| 420 | 425 | |

<210> 7266

<211> 354

<212> PRT

<213> Enterobacter cloacae

<400> 7266

| | | |
|-----------------------------|-------------------------|-------------|
| Ile Met Met Lys Arg Asn Ile | Leu Ala Val Val Val Pro | Ala Leu Leu |
| 1 | 5 | 10 |
| Val Ala Gly Ala Ala Asn Ala | Ala Glu Ile Tyr Asn Lys | Asp Gly Asn |
| 20 | 25 | 30 |
| Lys Leu Asp Leu Tyr Gly Lys | Ala Val Gly Leu His Tyr | Phe Ser Asp |
| 35 | 40 | 45 |
| Asn Asp Ser Asn Asp Gly Asp | Asn Thr Tyr Ala Arg Leu | Gly Phe Lys |
| 50 | 55 | 60 |
| Gly Glu Thr Gln Ile Asn Asp | Gln Leu Thr Gly Tyr Gly | Gln Trp Glu |
| 65 | 70 | 75 |
| Tyr Asn Phe Gln Gly Asn Asn | Ser Glu Gly Gly Asp Ala | Gln Asn Gly |
| 85 | 90 | 95 |
| Asn Lys Thr Arg Leu Ala Phe | Ala Gly Leu Lys Phe Gly | Asp Ala Gly |
| 100 | 105 | 110 |
| Ser Phe Asp Tyr Gly Arg Asn | Tyr Gly Leu Val Tyr Asp | Ala Ile Gly |
| 115 | 120 | 125 |
| Ile Thr Asp Met Leu Pro Glu | Phe Gly Gly Asp Thr Gly | Ala Ser Asp |
| 130 | 135 | 140 |
| Asn Phe Phe Ala Gly Arg Thr | Gly Gly Leu Ala Thr Tyr | Arg Asn Ser |
| 145 | 150 | 155 |
| Asn Phe Phe Gly Leu Val Asp | Gly Leu Asn Phe Gly Val | Gln Tyr Leu |
| 165 | 170 | 175 |
| Gly Lys Asn Glu Arg Thr Asp | Ala Val Arg Ser Asn Gly | Asp Gly Trp |
| 180 | 185 | 190 |
| Ala Thr Ser Leu Ser Tyr Asp | Phe Glu Gly Phe Gly Ile | Val Gly Ala |
| 195 | 200 | 205 |
| Tyr Gly Ala Ala Asp Arg Thr | Asn Asn Gln Gln Thr Leu | Glu Trp Gly |
| 210 | 215 | 220 |
| Lys Gly Asp Lys Ala Glu Gln | Trp Ala Thr Gly Leu Lys | Tyr Asp Ala |
| 225 | 230 | 235 |
| Asn Asn Ile Tyr Leu Ala Ala | Ile Tyr Gly Glu Met Arg | Asn Ala Ala |
| 245 | 250 | 255 |
| Arg Leu Gly Ser Arg Gly Phe | Ala Asn Lys Ser Gln Asp | Phe Ser Val |
| 260 | 265 | 270 |
| Val Ala Gln Tyr Gln Phe Asp | Phe Gly Leu Arg Pro Ser | Ile Ala Tyr |

[illegible]

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<210> 7267
<211> 222
<212> PRT
<213> Enterobacter cloacae
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<220>
<221> UNSURE
<222> (199)

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| <400> | 7267 | | | | | | | | | | | | | | | |
| Tyr | His | Arg | Gln | Ser | Pro | Ala | Val | Trp | Leu | Lys | Lys | Glu | Pro | Lys | Arg | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Met | Leu | Phe | Thr | Leu | Lys | Lys | Tyr | Ile | Gly | Gly | Met | Met | Leu | Pro | Leu | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Pro | Leu | Leu | Leu | Leu | Leu | Ile | Ala | Leu | Gly | Leu | Ala | Met | Ile | Trp | Phe | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Ser | Arg | Phe | Gln | Lys | Ser | Gly | Lys | Ser | Leu | Val | Thr | Val | Gly | Trp | Leu | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Ala | Leu | Leu | Leu | Leu | Ser | Leu | Gln | Pro | Val | Ala | Asp | Gly | Leu | Leu | Arg | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Pro | Ile | Glu | Asn | Thr | Tyr | Pro | Thr | Trp | Gln | Gly | Asn | Gln | Lys | Val | Gly | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Tyr | Ile | Val | Val | Leu | Gly | Gly | Gly | Tyr | Thr | Trp | Asp | Pro | Asn | Trp | Ala | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Pro | Ser | Ser | Asn | Leu | Ile | Asn | Asn | Ser | Leu | Pro | Arg | Leu | Asn | Glu | Gly | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Ile | Arg | Leu | Trp | Leu | Ala | Asn | Pro | Gly | Ser | Lys | Met | Ile | Phe | Thr | Gly | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ala | Ala | Ala | Lys | Thr | Asn | Pro | Val | Ser | Thr | Ala | Glu | Ala | Gly | Ala | Arg | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Val | Ala | Glu | Ser | Leu | Gly | Val | Pro | Arg | Ser | Ala | Ile | Ile | Thr | Leu | Asp | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ser | Pro | Lys | Asp | Thr | Glu | Glu | Glu | Ala | Ala | Ala | Val | Lys | Gln | Ala | Ile | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Gly | Asp | Val | Pro | Phe | Ala | Xaa | Gly | Asp | Ile | Tyr | Phe | His | Thr | Cys | Arg | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Ala | Gln | Leu | Phe | Glu | Asn | Glu | Leu | Glu | Ile | Pro | Pro | Lys | Glu | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |

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<210> 7268
<211> 403
<212> PRT
<213> Enterobacter cloacae
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<400> 7268
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 Asp Pro Ile Leu Gly Leu Ala Asp Leu Phe Arg Ala Asp Asp Arg Pro
 20 25 30

Gly Lys Ile Asn Leu Gly Ile Gly Val Tyr Lys Asp Glu Thr Gly Lys
 35 40 45
 Thr Pro Val Leu Thr Ser Val Lys Lys Ala Glu Gln Tyr Leu Leu Glu
 50 55 60
 Asn Glu Thr Thr Lys Asn Tyr Leu Gly Ile Asp Gly Ile Pro Glu Phe
 65 70 75 80
 Gly Arg Cys Thr Gln Glu Leu Leu Phe Gly Lys Gly Ser Thr Ile Val
 85 90 95
 Ser Glu Lys Arg Ala Arg Thr Ala Gln Thr Pro Gly Gly Thr Gly Ala
 100 105 110
 Leu Arg Val Ala Ala Asp Phe Leu Ala Lys Asn Thr Ser Val Lys Arg
 115 120 125
 Val Trp Val Ser Asn Pro Ser Trp Pro Asn His Lys Ser Val Phe Asn
 130 135 140
 Ser Ala Gly Leu Glu Val Arg Glu Tyr Ala Tyr Tyr Asp Ala Ala Ser
 145 150 155 160
 His Ala Leu Asp Phe Asp Gly Leu Leu Ala Ser Leu Ser Glu Ala Gln
 165 170 175
 Ala Gly Asp Val Val Leu Phe His Gly Cys Cys His Asn Pro Thr Gly
 180 185 190
 Ile Asp Pro Thr Leu Glu Gln Trp Glu Gln Leu Ala Lys Leu Ser Val
 195 200 205
 Glu Lys Gly Trp Leu Pro Leu Phe Asp Phe Ala Tyr Gln Gly Phe Ala
 210 215 220
 Arg Gly Leu Glu Glu Asp Ala Glu Gly Leu Arg Ala Phe Ala Ala Val
 225 230 235 240
 His Gln Glu Leu Ile Val Ala Ser Ser Tyr Ser Lys Asn Phe Gly Leu
 245 250 255
 Tyr Asn Glu Arg Val Gly Ala Cys Thr Leu Val Ala Ala Asp Glu Ala
 260 265 270
 Thr Val Asp Arg Ala Phe Ser Gln Met Lys Ser Val Ile Arg Ala Asn
 275 280 285
 Tyr Ser Asn Pro Pro Ala His Gly Ala Ser Val Val Ala Thr Ile Leu
 290 295 300
 Ser Asn Asp Ala Leu Arg Ala Ile Trp Glu Gln Glu Leu Asn Asp Met
 305 310 315 320
 Arg Gln Arg Ile Gln Arg Met Arg Leu Leu Phe Val Asn Thr Leu Ala
 325 330 335
 Glu Lys Gly Ala Asp Arg Asp Phe Ser Phe Ile Ile Lys Gln Asn Gly
 340 345 350
 Met Phe Ser Phe Ser Gly Leu Thr Lys Glu Gln Val Leu Arg Leu Arg
 355 360 365
 Glu Glu Phe Gly Val Tyr Ala Val Ala Ser Gly Arg Val Asn Val Ala
 370 375 380
 Gly Met Thr Pro Asp Asn Met Ala Pro Leu Cys Glu Ala Ile Val Ala
 385 390 395 400
 Val Leu

<210> 7269

<211> 272

<212> PRT

<213> Enterobacter cloacae

<400> 7269

Gln Asn Ser Gly Phe Ala Val Ser Gly Thr Leu Pro Met Arg Asp Arg
 1 5 10 15
 Asn Phe Asp Asp Ile Ala Glu Lys Phe Ser Arg Asn Ile Tyr Gly Thr
 20 25 30
 Thr Lys Gly Gln Leu Arg Gln Thr Ile Leu Trp Gln Asp Leu Asp Lys
 35 40 45

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Ala | Glu | Phe | Gly | Asp | Arg | Pro | Leu | Arg | Val | Leu | Asp | Ala | Gly |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Gly | Gly | Glu | Gly | Gln | Thr | Ala | Ile | Leu | Met | Ala | Gln | Arg | Gly | His | His |
| 65 | | | | | 70 | | | | | | 75 | | | | 80 |
| Val | Thr | Leu | Cys | Asp | Leu | Ser | Ala | Glu | Met | Val | Ala | Arg | Ala | Gly | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ala | Glu | Glu | Lys | Gly | Val | Ser | Asp | Asn | Met | His | Phe | Ile | His | Cys |
| | | | | 100 | | | | 105 | | | | | | 110 | |
| Ala | Ala | Gln | Asp | Ile | Pro | Gln | His | Leu | Glu | Thr | Gln | Val | Asp | Leu | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Phe | His | Ala | Val | Leu | Glu | Trp | Ile | Ala | Glu | Pro | Gln | Ala | Met | Leu |
| | | 130 | | | | | 135 | | | | 140 | | | | |
| Lys | Thr | Leu | Trp | Ser | Met | Leu | Arg | Pro | Gly | Gly | Ala | Leu | Ser | Leu | Met |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Tyr | Asn | Ala | Asn | Gly | Leu | Leu | Met | Arg | Asn | Val | Leu | Val | Gly | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Gly | Tyr | Val | Gln | Gln | Gly | Met | Tyr | Lys | Lys | Lys | Arg | Arg | Thr | Leu |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Ser | Pro | Asp | Phe | Pro | Arg | Glu | Pro | Gln | Gln | Val | Tyr | Gly | Trp | Leu | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Ile | Gly | Trp | Glu | Ile | Thr | Gly | Lys | Thr | Gly | Val | Arg | Val | Phe | His |
| | | 210 | | | | | 215 | | | | 220 | | | | |
| Asp | Tyr | Leu | Arg | Asp | Lys | Gln | Lys | Gln | Asp | Asp | Cys | Leu | Asp | Ala | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Glu | Ile | Glu | Thr | Arg | Tyr | Cys | Arg | Gln | Glu | Pro | Tyr | Leu | Ser | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Arg | Tyr | Ile | His | Val | Thr | Ala | Arg | Lys | Pro | Gln | Met | Gln | Gly | |
| | | | 260 | | | | | 265 | | | | | 270 | | |

<210> 7270

<211> 442

<212> PRT

<213> Enterobacter cloacae

<400> 7270

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Met | Ser | Glu | Phe | Ser | Gln | Thr | Val | Pro | Glu | Leu | Val | Ala | Trp | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Lys | Asn | Asp | Phe | Ser | Ile | Ser | Leu | Pro | Val | Asp | Arg | Leu | Ser | Phe |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Ala | Val | Ala | Thr | Leu | Asn | Gly | Glu | Arg | Leu | Asp | Gly | Glu | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Glu | Gly | Glu | Leu | Val | Asp | Ala | Phe | Arg | His | Val | Ser | Asp | Ala | Phe |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Glu | Gln | Thr | Ser | Glu | Thr | Ile | Ser | Val | Arg | Ala | Asn | Asn | Ala | Ile | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Met | Val | Arg | Gln | Arg | Leu | Leu | Asn | Arg | Phe | Thr | Ser | Glu | Gln | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Gly | Asn | Ala | Ile | Tyr | Arg | Leu | Thr | Pro | Leu | Gly | Ile | Gly | Ile | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Tyr | Tyr | Ile | Arg | Gln | Arg | Glu | Phe | Ser | Thr | Leu | Arg | Leu | Ser | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Leu | Ser | Ile | Val | Ala | Gly | Glu | Leu | Lys | Arg | Ala | Ala | Asp | Ala | Ala |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Asp | Glu | Asn | Gly | Asp | Glu | Phe | His | Trp | His | Arg | Asn | Val | Tyr | Ala | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Lys | Tyr | Ser | Val | Ala | Glu | Ile | Phe | Asp | Ser | Ile | Asp | Leu | Thr | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Leu | Met | Asp | Glu | Gln | Gln | Gln | Gln | Val | Lys | Asp | Asp | Ile | Ala | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Leu | Asn | Lys | Asp | Trp | Arg | Ala | Ala | Ile | Ser | Ser | Cys | Glu | Leu | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Leu Ser Glu Thr Ser Gly Thr Leu Arg Glu Leu Gln Asp Thr Leu Glu
 210 215 220
 Ala Ala Gly Asp Lys Leu Gln Ala Asn Leu Leu Arg Ile Gln Asp Ala
 225 230 235 240
 Thr Met Ala His Asp Asp Leu His Phe Ile Asp Arg Leu Val Phe Asp
 245 250 255
 Leu Gln Ser Lys Leu Asp Arg Ile Ile Ser Trp Gly Gln Gln Ser Ile
 260 265 270
 Asp Leu Trp Ile Gly Tyr Asp Arg His Val His Lys Phe Ile Arg Thr
 275 280 285
 Ala Ile Asp Met Asp Lys Asn Arg Val Phe Ala Gln Arg Leu Arg Gln
 290 295 300
 Ser Val Gln Thr Tyr Phe Asp Ala Pro Trp Ala Leu Thr His Ala Asn
 305 310 315 320
 Ala Asp Arg Leu Leu Asp Met Arg Asp Glu Glu Met Ala Leu Arg Asp
 325 330 335
 Glu Glu Val Thr Gly Glu Leu Pro Pro Asp Leu Glu Tyr Glu Glu Phe
 340 345 350
 Asn Glu Ile Arg Glu Gln Leu Ala Ala Met Ile Glu Glu Gln Leu Ala
 355 360 365
 Val Tyr Lys Thr Arg Gln Ala Pro Leu Asp Leu Gly Leu Val Val Arg
 370 375 380
 Asp Tyr Leu Ala Gln Tyr Pro Arg Ala Arg His Phe Asp Val Ala Arg
 385 390 395 400
 Ile Val Val Asp Gln Ala Val Arg Leu Gly Ile Ala Gln Ala Asp Phe
 405 410 415
 Thr Gly Leu Pro Pro Lys Trp Gln Pro Ile Asn Asp Tyr Gly Ala Lys
 420 425 430
 Val Gln Ala His Val Ile Asp Lys Tyr
 435 440

<210> 7271

<211> 1488

<212> PRT

<213> Enterobacter cloacae

<400> 7271

Arg Gly Gly Arg Val Met Ile Glu Arg Gly Lys Phe Arg Ser Leu Thr
 1 5 10 15
 Leu Ile Asn Trp Asn Gly Phe Phe Ala Arg Thr Phe Asp Leu Asp Glu
 20 25 30
 Leu Val Thr Thr Leu Ser Gly Gly Asn Gly Ala Gly Lys Ser Thr Thr
 35 40 45
 Met Ala Ala Phe Val Thr Ala Leu Ile Pro Asp Leu Thr Leu Leu His
 50 55 60
 Phe Arg Asn Thr Thr Glu Ala Gly Ala Thr Ser Gly Ser Arg Asp Lys
 65 70 75 80
 Gly Leu His Gly Lys Leu Lys Ala Gly Val Cys Tyr Ser Val Leu Asp
 85 90 95
 Val Ile Asn Ser Arg His Gln Arg Val Val Val Gly Val Arg Leu Gln
 100 105 110
 Gln Val Ala Gly Arg Asp Arg Lys Val Asp Ile Lys Pro Phe Ala Ile
 115 120 125
 Gln Gly Leu Pro Thr Ser Val Gln Pro Thr Ala Leu Leu Thr Glu Thr
 130 135 140
 Leu Asn Glu Arg Gln Ala Arg Val Leu Thr Leu Gln Glu Leu Lys Asp
 145 150 155 160
 Lys Leu Glu Ala Ile Glu Gly Val Gln Phe Lys Gln Phe Asn Ser Ile
 165 170 175
 Thr Asp Tyr His Ser Leu Met Phe Asp Leu Gly Val Val Ala Arg Arg
 180 185 190

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Ser | Ala | Ser | Asp | Arg | Ser | Lys | Tyr | Tyr | Arg | Leu | Ile | Glu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Leu | Tyr | Gly | Gly | Ile | Ser | Ser | Ala | Ile | Thr | Arg | Ser | Leu | Arg | Asp |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Tyr | Leu | Leu | Pro | Glu | Asn | Ser | Gly | Val | Arg | Lys | Ala | Phe | Gln | Asp | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Ala | Ala | Leu | Arg | Glu | Asn | Arg | Met | Thr | Leu | Glu | Ala | Ile | Arg | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Gln | Ser | Asp | Arg | Asp | Leu | Phe | Lys | His | Leu | Ile | Ser | Glu | Ala | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asn | Tyr | Val | Ala | Ala | Asp | Tyr | Met | Arg | His | Ala | Asn | Glu | Arg | Arg | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| His | Leu | Asp | Gln | Ala | Leu | Glu | Tyr | Arg | Arg | Glu | Leu | Phe | Thr | Ser | Arg |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Lys | Gln | Leu | Val | Ala | Glu | Gln | Tyr | Lys | His | Val | Glu | Met | Ala | Arg | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Gly | Glu | His | Asn | Gly | Ala | Glu | Gly | Asp | Leu | Glu | Ala | Asp | Tyr | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Ala | Ser | Asp | His | Leu | Asn | Leu | Val | Gln | Thr | Ala | Leu | Arg | Gln | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Lys | Ile | Glu | Arg | Tyr | Glu | Ala | Asp | Leu | Asp | Glu | Leu | Gln | Ile | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Glu | Glu | Gln | Asn | Glu | Val | Val | Ala | Glu | Ala | Ala | Glu | Leu | Gln | Glu |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Glu | Asn | Glu | Ala | Arg | Ala | Glu | Ala | Ala | Glu | Leu | Glu | Val | Asp | Glu | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Lys | Ser | Gln | Leu | Ala | Asp | Tyr | Gln | Gln | Ala | Leu | Asp | Val | Gln | Gln | Thr |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Arg | Ala | Ile | Gln | Tyr | Asn | Gln | Ala | Leu | Gln | Ala | Leu | Gln | Arg | Ala | Lys |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | Leu | Cys | His | Leu | Pro | Asp | Leu | Thr | Pro | Glu | Ser | Ala | Asp | Glu | Trp |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Leu | Asp | Thr | Phe | Gln | Ala | Lys | Glu | Gln | Glu | Ala | Thr | Glu | Lys | Leu | Leu |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Ser | Leu | Asp | Gln | Lys | Met | Ser | Val | Ala | Gln | Thr | Ala | His | Ser | Gln | Phe |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Glu | Gln | Ala | Tyr | Gln | Leu | Val | Val | Ala | Ile | Asn | Gly | Pro | Leu | Ala | Arg |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Asn | Glu | Ala | Trp | Asp | Val | Ala | Arg | Glu | Leu | Leu | Arg | Asp | Gly | Val | Asn |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Gln | Arg | His | Leu | Ala | Glu | Gln | Val | Gln | Pro | Leu | Arg | Met | Arg | Leu | Asn |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Glu | Leu | Glu | Gln | Arg | Leu | Arg | Glu | Gln | Gln | Glu | Ala | Glu | Arg | Leu | Leu |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Ala | Glu | Phe | Cys | Lys | Arg | Gln | Gly | Lys | Asn | Tyr | Asp | Phe | Asp | Glu | Leu |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Glu | Ala | Leu | His | Gln | Glu | Leu | Glu | Ala | Arg | Ile | Ala | Ala | Leu | Ser | Asp |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Thr | Val | Ser | Asn | Ala | Ser | Glu | Gln | Arg | Met | Thr | Leu | Arg | Gln | Glu | Leu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Glu | Gln | Leu | Gln | Ser | Arg | Ser | Lys | Thr | Leu | Leu | Gln | Arg | Ala | Pro | Ile |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Trp | Leu | Ala | Ala | Gln | Ser | Ser | Leu | Asn | Gln | Leu | Ser | Glu | Gln | Cys | Gly |
| | | 610 | | | | 615 | | | | | 620 | | | | |
| Gln | Glu | Phe | Ala | Ser | Ser | Gln | Asp | Val | Thr | Glu | Tyr | Met | Gln | Gln | Leu |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Leu | Glu | Arg | Glu | Arg | Glu | Ala | Ile | Val | Glu | Arg | Asp | Glu | Val | Gly | Ala |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Arg | Lys | Arg | Asp | Val | Asp | Glu | Glu | Ile | Glu | Arg | Leu | Ser | Gln | Pro | Gly |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Gly | Ser | Glu | Asp | Pro | Arg | Leu | Asn | Ala | Leu | Ala | Glu | Arg | Phe | Gly | Gly |

| | | |
|---|------|------|
| 675 | 680 | 685 |
| Val Leu Leu Ser Glu Ile Tyr Asp Asp Val Gly Leu Asp Asp Ala Pro | | |
| 690 | 695 | 700 |
| Tyr Phe Ser Ala Leu Tyr Gly Pro Ser Arg Asn Ala Ile Val Val Pro | | |
| 705 | 710 | 715 |
| Asp Leu Ser Leu Ile Ser Asp Gln Leu Ala Gly Leu Glu Asp Cys Pro | | |
| 725 | 730 | 735 |
| Glu Asp Leu Tyr Leu Ile Glu Gly Asp Pro Gln Ser Phe Asp Asp Ser | | |
| 740 | 745 | 750 |
| Val Phe Ser Val Asp Glu Leu Glu Lys Ala Val Val Val Lys Ile Ala | | |
| 755 | 760 | 765 |
| Asp Arg Gln Trp Arg Tyr Ser Arg Phe Pro Glu Leu Pro Leu Phe Gly | | |
| 770 | 775 | 780 |
| Arg Ala Ala Arg Glu Ser Arg Ile Glu Ser Leu His Ala Glu Arg Glu | | |
| 785 | 790 | 795 |
| Thr Leu Ser Glu Arg Phe Ala Thr Leu Ser Phe Asp Val Gln Lys Thr | | |
| 805 | 810 | 815 |
| Gln Arg Leu His Gln Ala Phe Ser Arg Phe Ile Gly Ser His Leu Gly | | |
| 820 | 825 | 830 |
| Val Ala Phe Glu Pro Asp Pro Glu Ala Glu Ile Arg Lys Leu Asn Thr | | |
| 835 | 840 | 845 |
| Arg Arg Gly Glu Leu Glu Arg Ala Leu Ala Ser His Glu Asn Asp Asn | | |
| 850 | 855 | 860 |
| Gln Gln Ser Arg Val Gln Phe Glu Gln Ala Lys Glu Gly Val Ala Ala | | |
| 865 | 870 | 875 |
| Leu Asn Arg Ile Leu Pro Arg Leu Asn Leu Leu Ala Asp Asp Thr Leu | | |
| 885 | 890 | 895 |
| Ala Asp Arg Val Asp Glu Ile Gln Glu Arg Leu Asp Glu Ala Gln Glu | | |
| 900 | 905 | 910 |
| Ala Ala Arg Phe Val Gln Gln His Gly Asn Gln Leu Ala Lys Leu Glu | | |
| 915 | 920 | 925 |
| Pro Met Val Ser Val Leu Gln Ser Asp Pro Glu Gln Phe Glu Gln Leu | | |
| 930 | 935 | 940 |
| Lys Glu Asp Tyr Ala Trp Ser Gln Gln Val Gln Arg Glu Ala Arg Gln | | |
| 945 | 950 | 955 |
| Gln Ala Phe Ala Leu Thr Glu Val Val Gln Arg Arg Ala His Phe Gly | | |
| 965 | 970 | 975 |
| Tyr Ser Asp Ser Ala Glu Met Leu Ser Gly Asn Ser Asp Leu Asn Glu | | |
| 980 | 985 | 990 |
| Lys Leu Arg Gln Arg Leu Glu Gln Ala Glu Ala Glu Arg Thr Arg Ala | | |
| 995 | 1000 | 1005 |
| Arg Glu Ala Met Arg Thr His Ala Ala Gln Leu Ser Gln Tyr Ser Gln | | |
| 1010 | 1015 | 1020 |
| Val Met Ala Ser Leu Lys Ser Ser Phe Asp Thr Lys Lys Glu Leu Leu | | |
| 1025 | 1030 | 1035 |
| Asn Asp Leu His Lys Glu Leu Gln Asp Ile Gly Val Arg Ala Asp Ser | | |
| 1045 | 1050 | 1055 |
| Gly Ala Glu Glu Arg Ala Arg Ile Arg Arg Asp Glu Leu His Ala Gln | | |
| 1060 | 1065 | 1070 |
| Leu Ser Asn Asn Arg Ala Arg Arg Asn Gln Leu Glu Lys Ala Leu Thr | | |
| 1075 | 1080 | 1085 |
| Phe Cys Glu Ala Glu Met Asp Asn Leu Thr Arg Arg Leu Arg Lys Leu | | |
| 1090 | 1095 | 1100 |
| Glu Arg Asp Tyr His Glu Met Arg Glu Gln Val Val Thr Ala Lys Ala | | |
| 1105 | 1110 | 1115 |
| Gly Trp Cys Ala Val Met Arg Met Val Lys Asp Asn Asn Val Glu Arg | | |
| 1125 | 1130 | 1135 |
| Arg Leu His Arg Arg Glu Leu Ala Tyr Leu Ser Ala Asp Glu Leu Arg | | |
| 1140 | 1145 | 1150 |
| Ser Met Ser Asp Lys Ala Leu Gly Ala Leu Arg Leu Ala Val Ala Asp | | |
| 1155 | 1160 | 1165 |

Asn Glu His Leu Arg Asp Val Leu Arg Met Ser Glu Asp Pro Lys Arg
 1170 1175 1180
 Pro Glu Arg Lys Ile Gln Phe Phe Val Ala Val Tyr Gln His Leu Arg
 1185 1190 1195 1200
 Glu Arg Ile Arg Gln Asp Ile Ile Arg Thr Asp Asp Pro Val Glu Ala
 1205 1210 1215
 Ile Glu Gln Met Glu Ile Glu Leu Gly Arg Leu Thr Glu Glu Leu Thr
 1220 1225 1230
 Ser Arg Glu Gln Lys Leu Ala Ile Ser Ser Arg Ser Val Ala Asn Ile
 1235 1240 1245
 Ile Arg Lys Thr Ile Gln Arg Glu Gln Asn Arg Ile Arg Gln Leu Asn
 1250 1255 1260
 Gln Gly Leu Gln Ser Val Ser Phe Gly Gln Val Asn Ser Val Arg Leu
 1265 1270 1275 1280
 Asn Val Asn Val Arg Glu Ala His Ser Thr Leu Leu Asp Val Leu Ser
 1285 1290 1295
 Glu Gln His Glu Gln His Gln Asp Leu Phe Asn Ser Asn Arg Leu Thr
 1300 1305 1310
 Phe Ser Glu Ala Leu Ala Lys Leu Tyr Gln Arg Leu Asn Pro Gln Ile
 1315 1320 1325
 Asp Met Gly Gln Arg Thr Pro Gln Thr Ile Gly Glu Glu Leu Leu Asp
 1330 1335 1340
 Tyr Arg Asn Tyr Leu Glu Met Glu Val Glu Val Asn Arg Gly Ser Asp
 1345 1350 1355 1360
 Gly Trp Leu Arg Ala Glu Ser Gly Ala Leu Ser Thr Gly Glu Ala Ile
 1365 1370 1375
 Gly Thr Gly Met Ser Ile Leu Val Met Val Val Gln Ser Trp Glu Asp
 1380 1385 1390
 Glu Ala Arg Arg Leu Arg Gly Lys Asp Ile Ser Pro Cys Arg Leu Leu
 1395 1400 1405
 Phe Leu Asp Glu Ala Ala Arg Leu Asp Ala Arg Ser Ile Ala Thr Leu
 1410 1415 1420
 Phe Glu Leu Cys Glu Arg Leu Asp Met Gln Leu Ile Ile Ala Ala Pro
 1425 1430 1435 1440
 Glu Asn Ile Ser Pro Glu Lys Gly Thr Thr Tyr Lys Leu Val Arg Lys
 1445 1450 1455
 Val Phe Gln Asn Ser Glu His Val His Val Val Gly Leu Arg Gly Phe
 1460 1465 1470
 Ala Pro Gln Pro Pro Glu Ser Leu Pro Gly Thr Ala Asp Ala Ser
 1475 1480 1485

<210> 7272

<211> 194

<212> PRT

<213> Enterobacter cloacae

<400> 7272

Gln Phe Leu Leu Pro Val Asp Leu Ile Ile Met Asp Lys Phe Asp Ala
 1 5 10 15
 Asn Arg Arg Lys Leu Leu Ala Leu Gly Gly Val Ala Leu Gly Ala Ala
 20 25 30
 Ala Ile Leu Pro Thr Pro Ala Phe Ala Thr Leu Ser Thr Pro Arg Pro
 35 40 45
 Arg Ile Leu Thr Leu Asn Asn Leu His Thr Gly Glu Thr Leu Lys Ala
 50 55 60
 Glu Phe Phe Asp Gly Arg Gly Tyr Ile Gln Asp Glu Leu Ala Arg Leu
 65 70 75 80
 Asn His Phe Phe Arg Asp Phe Arg Ala Asn Lys Ile Lys Ala Ile Asp
 85 90 95
 Pro Gly Leu Phe Asp Gln Leu Tyr Arg Leu Gln Gly Leu Leu Gly Thr
 100 105 110

Lys Arg Pro Val Gln Leu Ile Ser Gly Tyr Arg Ser Leu Asp Thr Asn
 115 120 125
 Asn Glu Leu Arg Ala His Ser Arg Gly Val Ala Lys Lys Ser Tyr His
 130 135 140
 Thr Lys Gly Gln Ala Met Asp Phe His Ile Glu Gly Val Ser Leu Ala
 145 150 155 160
 Asn Ile Arg Lys Ala Ala Leu Ser Met Arg Ala Gly Gly Val Gly Tyr
 165 170 175
 Tyr Pro Arg Ser Asn Phe Val His Ile Asp Thr Gly Pro Val Arg His
 180 185 190
 Trp

<210> 7273

<211> 267

<212> PRT

<213> Enterobacter cloacae

<400> 7273

Thr Arg Arg Cys Ala Trp Ala Ser His Lys Pro Ile Ser Pro Asp Cys
 1 5 10 15
 Arg Arg Ser Gly Ser Arg Leu Thr Ile Thr Glu Pro Arg Tyr Arg Arg
 20 25 30
 Met Ser Leu Thr Asn Ile Glu Gln Val Met Pro Val Lys Leu Ala Gln
 35 40 45
 Ala Leu Ala Asn Pro Leu Phe Pro Ala Leu Asp Ser Gln Leu Arg Ala
 50 55 60
 Gly Arg His Ile Gly Leu Asp Glu Leu Asp Asn His Ala Phe Leu Met
 65 70 75 80
 Asp Phe Gln Glu Tyr Leu Glu Glu Phe Tyr Ala Arg Tyr Asn Val Glu
 85 90 95
 Leu Ile Arg Ala Pro Glu Gly Phe Phe Tyr Leu Arg Pro Arg Ser Thr
 100 105 110
 Thr Leu Ile Pro Arg Ser Val Leu Ser Glu Leu Asp Met Met Val Gly
 115 120 125
 Lys Ile Leu Cys Tyr Leu Tyr Leu Ser Pro Glu Arg Leu Ala Asn Glu
 130 135 140
 Gly Ile Phe Thr Gln Gln Glu Leu Tyr Asp Glu Leu Leu Ser Leu Ala
 145 150 155 160
 Asp Glu Ser Lys Leu Leu Lys Leu Val Asn Asn Arg Ser Thr Gly Ser
 165 170 175
 Asp Leu Asp Arg Gln Lys Leu Gln Glu Lys Val Arg Ser Ser Leu Asn
 180 185 190
 Arg Leu Arg Arg Leu Gly Met Val Trp Phe Met Gly His Asp Ser Ser
 195 200 205
 Lys Phe Arg Ile Thr Glu Ser Val Phe Arg Phe Gly Ala Asp Val Arg
 210 215 220
 Ala Gly Asp Asp Ala Arg Glu Ala Gln Leu Arg Met Ile Arg Asp Gly
 225 230 235 240
 Glu Ala Met Pro Val Glu Asn His Leu Gln Leu Asn Asp Glu His Glu
 245 250 255
 Glu Asn Gln Pro Asp Ser Gly Glu Glu Glu
 260 265

<210> 7274

<211> 75

<212> PRT

<213> Enterobacter cloacae

<400> 7274

Ser Ala Lys Pro Pro Thr Thr Trp Arg Arg Thr Ile Cys Ala Thr Pro

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Thr | Ser | Ala | Val | Phe | Ile | Ser | Ile | Arg | Arg | Trp | Ser | Ile | Ala | Ala | Ser |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Cys | Leu | Pro | Pro | Ala | Asn | Ser | Trp | Trp | Pro | Ser | Ser | Ile | Ser | Met | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Trp | Arg | Ala | Asn | Trp | Ala | Ser | Thr | Met | Val | Leu | Lys | Gly | Ile | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Pro | Ile | Thr | Arg | Arg | Pro | Ala | Ile | Ile | | | | | | |
| 65 | | | | | 70 | | | | 75 | | | | | | |

<210> 7275

<211> 110

<212> PRT

<213> Enterobacter cloacae

<400> 7275

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Trp | Cys | Arg | Ala | Gly | Lys | Met | Lys | Arg | Ala | Val | Cys | Ala | Ala | Lys |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Thr | Ser | Leu | His | Val | Val | Cys | Cys | Ser | Ser | Met | Lys | Pro | Arg | Val | Ser |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Thr | Pro | Ala | Pro | Ser | Pro | Arg | Cys | Leu | Ser | Phe | Ala | Ser | Asp | Ser | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Ser | Ser | Ser | Ser | Arg | Arg | Arg | Lys | Thr | Ser | Val | Arg | Lys | Lys | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Pro | Ile | Ser | Trp | Cys | Val | Arg | Cys | Ser | Arg | Thr | Val | Asn | Thr | Cys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Ser | Trp | Ala | Cys | Val | Val | Ser | Pro | Arg | Ser | His | Arg | Ser | His | Tyr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Arg | Ala | Arg | Leu | Thr | Pro | Leu | Asn | Leu | Gly | Cys | Asp | Lys | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | |

<210> 7276

<211> 636

<212> PRT

<213> Enterobacter cloacae

<400> 7276

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Ala | Ala | Cys | Met | Pro | Phe | Tyr | Thr | Glu | Gly | Lys | Leu | Gln |
| 1 | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Thr | Gly | His | Val | Val | Lys | Asn | Arg | Gly | Gln | Gly | Met | Leu | Lys |
| | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Asn | Arg | Gly | Arg | Gln | Leu | Ser | Ala | Leu | Ser | Leu | Cys | Leu | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | |
| Met | Phe | Ala | Pro | Leu | Phe | Thr | Ala | Gln | Ala | Asp | Glu | Pro | Glu | Ile |
| | 50 | | | | | 55 | | | | 60 | | | | |
| Pro | Thr | Asp | Ser | Ser | Ala | Thr | Met | Gly | Ala | Gln | Pro | Thr | Ser | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 |
| Gln | Pro | Leu | Asp | Gln | Ser | Pro | Ala | Thr | Ala | Ile | Met | Ala | Gly | Ile |
| | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Leu | Pro | Glu | Gly | Ile | Asp | Thr | Gly | Ser | Leu | Arg | Gln | Gln | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Thr | Gly | Leu | Pro | Ser | Gly | Tyr | Thr | Pro | Ala | Tyr | Ile | Asn | Gln | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | |
| Leu | Leu | Tyr | Ala | Ala | Arg | Asp | Met | Lys | Pro | Met | Trp | Glu | Asn | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | |
| Ala | Val | Arg | Ala | Phe | Gln | Gln | Leu | Ala | Glu | Val | Ala | Ile | Ala | Gly |
| 145 | | | | | 150 | | | | 155 | | | | | 160 |
| Phe | Gln | Pro | Gln | Phe | Thr | Thr | Trp | Val | Glu | Leu | Leu | Thr | Asp | Pro |
| | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Thr | Gly | Gln | Ala | Arg | Asp | Val | Val | Leu | Ser | Asp | Ala | Met | Met |
| | | | 180 | | | | | 185 | | | | | 190 | |

Tyr Leu Gln Phe Val Ala Gly Ile Ser Val Asn Gly Asn Arg Trp Leu
 195 200 205
 Tyr Ser Ser Lys Pro Tyr Lys Leu Ala Thr Pro Ala Leu Ser Val Ile
 210 215 220
 Asn Gln Trp Gln Leu Ser Leu Asp Asn Gly Glu Leu Pro Arg Phe Ile
 225 230 235 240
 Ala Ser Leu Ala Pro Ala His Pro Gln Tyr Ala Thr Met His Gln Ser
 245 250 255
 Leu Leu Glu Leu Val Ala Asp Ser Arg Pro Trp Pro Gln Leu Arg Gly
 260 265 270
 Thr Thr Thr Leu Arg Pro Gly Gln Trp Ser Ser Asp Val Pro Ala Ile
 275 280 285
 Arg Glu Ile Met Lys Arg Ser Gly Ile Leu Asp Ser Gly Pro Lys Ile
 290 295 300
 Ala Leu Pro Gly Asp Glu Thr Gln Asn Ala Val Val Ser Pro Ser Ala
 305 310 315 320
 Pro Val Lys Glu Lys Thr Ala Val Ala Leu Ser Asn Lys Pro Ala Ala
 325 330 335
 Tyr Asp Arg Glu Leu Val Ala Ala Val Lys Gln Phe Gln Ala Ala Gln
 340 345 350
 Gly Leu Gly Ala Asp Gly Val Ile Gly Pro Ser Thr Arg Asp Trp Leu
 355 360 365
 Asn Val Ser Pro Ala Gln Arg Ala Gly Val Leu Ala Leu Asn Ile Gln
 370 375 380
 Arg Leu Arg Leu Leu Pro Gly Thr Leu Ser Thr Gly Ile Met Val Asn
 385 390 395 400
 Ile Pro Ala Tyr Ser Leu Val Tyr Tyr Gln Asp Gly Ser Glu Val Leu
 405 410 415
 Ala Ser Arg Val Ile Val Gly Arg Pro Asp Arg Lys Thr Pro Met Met
 420 425 430
 Ser Ser Ala Leu Asn Asn Val Val Val Asn Pro Pro Trp Asn Val Pro
 435 440 445
 Pro Thr Leu Ala Arg Lys Asp Ile Leu Pro Lys Val Trp Asn Asp Pro
 450 455 460
 Gly Tyr Leu Glu Arg His Asn Tyr Thr Val Met Arg Gly Trp Asn Ser
 465 470 475 480
 Lys Glu Ala Ile Asp Pro Trp Met Val Asp Trp Ser Thr Ile Thr Pro
 485 490 495
 Ser Asn Leu Pro Phe Arg Phe Gln Gln Ala Pro Gly Ala His Asn Ser
 500 505 510
 Leu Gly Arg Tyr Lys Phe Asn Met Pro Ser Ser Asp Ala Ile Tyr Leu
 515 520 525
 His Asp Thr Pro Asn His Asn Leu Phe Gln Lys Asp Ala Arg Ala Leu
 530 535 540
 Ser Ser Gly Cys Val Arg Val Asn Lys Ala Ser Glu Leu Ala Asn Met
 545 550 555 560
 Leu Leu Gln Asp Ala Gly Trp Asn Asp Thr Arg Ile Ser Asp Ala Leu
 565 570 575
 Lys Gln Gly Asp Thr Arg Tyr Val Asn Ile Arg His Asn Ile Pro Val
 580 585 590
 Asn Leu Tyr Tyr Leu Thr Ala Phe Val Gly Ala Asp Gly Arg Thr Gln
 595 600 605
 Tyr Arg Thr Asp Ile Tyr Asn Tyr Asp Leu Thr Ala Arg Ser Gly Ala
 610 615 620
 Gln Ile Leu Pro Lys Ala Glu Gln Leu Ile Arg
 625 630 635

<210> 7277

<211> 231

<212> PRT

<213> Enterobacter cloacae

<400> 7277

Tyr Arg Ala Gly Ser Ala Leu Val Ile Thr Lys His Arg Ser Ser Met
 1 5 10 15
 Asn Tyr Arg Ile Ile Pro Val Thr Ala Phe Ser Gln Asn Cys Ser Leu
 20 25 30
 Ile Trp Cys Glu Gln Thr Lys Leu Ala Ala Leu Val Asp Pro Gly Gly
 35 40 45
 Asp Ala Glu Thr Ile Lys Gln Glu Val Ala Ala Ser Gly Val Thr Leu
 50 55 60
 Met Gln Ile Leu Leu Thr His Gly His Leu Asp His Val Gly Ala Ala
 65 70 75 80
 Ala Glu Leu Ala Glu His Tyr Gly Val Pro Ile Ile Gly Pro Glu Lys
 85 90 95
 Glu Asp Glu Phe Trp Leu Gln Gly Leu Pro Ala Gln Ser Arg Met Phe
 100 105 110
 Gly Leu Glu Asp Cys Gln Pro Leu Thr Pro Asp Arg Trp Leu Asn Glu
 115 120 125
 Asp Asp Arg Val Asn Val Gly Asn Val Thr Leu Gln Val Leu His Cys
 130 135 140
 Pro Gly His Thr Pro Gly His Ile Val Phe Phe Asp Asp Val Ser Arg
 145 150 155 160
 Leu Leu Ile Ser Gly Asp Val Ile Phe Lys Gly Gly Val Gly Arg Ser
 165 170 175
 Asp Phe Pro Arg Gly Asp His Gly Gln Leu Ile Gln Ser Ile Lys Gln
 180 185 190
 Lys Leu Leu Pro Leu Gly Asp Asp Val Thr Phe Ile Pro Gly His Gly
 195 200 205
 Pro Met Ser Thr Leu Gly Asp Glu Arg Leu His Asn Pro Phe Leu Gln
 210 215 220
 Asp Glu Met Pro Val Trp
 225 230

<210> 7278

<211> 406

<212> PRT

<213> Enterobacter cloacae

<400> 7278

Gly Cys Arg Leu Gln His Arg Asp Asn Gly Phe Ala Gln Arg Arg His
 1 5 10 15
 Val Val Arg Arg His Thr Cys Asn Val His Ala Ala Arg Cys Asn Gly
 20 25 30
 Ile His Ala Lys Leu Phe Thr Gln Ala Gln His Leu Leu Phe Gly Gln
 35 40 45
 Ala Ala Glu Gly Glu His Ala Val Leu Leu Asp Asp Glu Ala Glu Val
 50 55 60
 Thr Val Ser Ala Phe Leu Ser Gln Arg Val His Lys Gln Gln Thr His
 65 70 75 80
 Ala Leu Asn Ala Leu Thr His Ile Val Gln Leu Leu Leu Pro Asp Gly
 85 90 95
 Ala Gln Arg Ile Val Ala Gln Asp Arg Arg Asp His Arg Arg Thr Val
 100 105 110
 Cys Arg Trp Val Gly Val Val Ser Ala Asp His Gly Leu His Leu Ala
 115 120 125
 Glu Cys Ala Ile Asp Gly Cys Phe Val Ser Ser His Gln Arg Thr Gly
 130 135 140
 Ala Asp Thr Leu Val Ile Gln Thr Lys Val Leu Gly Ile Gly Ala Cys
 145 150 155 160
 Asp Tyr Gln Leu Leu Met His Gly Gly Glu Cys Ala Gln Thr Phe Cys
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Phe | Gln | Thr | Thr | Gly | Lys | Ala | Leu | Val | Ser | Glu | Val | Lys | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Gln | Pro | Ala | Phe | Phe | Asn | Gly | Gln | Leu | Ser | Gln | Leu | Phe | Pro | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Lys | Arg | Arg | Ile | Asp | Thr | Gly | Trp | Val | Met | Ala | Ala | Ala | Val | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | His | His | Ile | Ala | Arg | Leu | Gly | Phe | Ala | Gln | Ala | Gly | Gln | Gln | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Glu | Ile | Gln | Arg | Val | Ala | Gly | Cys | Val | Val | Val | Gly | Val | Phe | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| His | Phe | Gln | Thr | Arg | Arg | Ile | Lys | His | Ala | Leu | Met | Val | Arg | Pro | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Trp | Ile | Ala | Tyr | Pro | His | Thr | Leu | His | Arg | Ser | Val | Phe | Arg | Gln | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Cys | Arg | His | Ala | Gln | Cys | Ala | Gly | Thr | Ala | Trp | Gly | Leu | Arg | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Gly | Ala | Phe | Phe | Ala | His | Asn | Gly | Ala | Ala | Phe | Ala | Glu | Gln | Gln |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Leu | Gly | Ala | Ala | Thr | Lys | Phe | Arg | Asp | Thr | Ile | Asn | Thr | Glu | Val |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Val | Phe | Gly | Gly | Phe | Val | Phe | Gln | Gln | Ile | Leu | Leu | Ser | Phe | Phe | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Gly | Gln | Tyr | Arg | Ser | Phe | Ala | Gly | Phe | Ile | Phe | Ile | Tyr | Thr | Asn |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Gln | Val | Asp | Phe | Ser | Arg | Ala | Val | Val | Gly | Ala | Lys | Gln | Ile | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gln | Ala | Gln | Asn | Trp | Val | Gly | Arg | Ser | Gly | Ser | Asn | Val | Leu | Lys | His |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asp | Glu | Val | Pro | Leu | | | | | | | | | | | |
| | | | | 405 | | | | | | | | | | | |

<210> 7279

<211> 464

<212> PRT

<213> Enterobacter cloacae

<400> 7279.

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Met | Lys | Pro | Gly | Tyr | His | Glu | Ile | Tyr | Ser | Arg | Tyr | Arg | Asp | Asn |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ile | Met | Arg | Gly | Val | Leu | Lys | Pro | Gly | Asp | Arg | Val | Pro | Ala | Ile | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Ala | Glu | Glu | Leu | Lys | Val | Ala | Arg | Lys | Thr | Val | Glu | Thr | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Ala | Ile | Leu | Thr | Gly | Glu | Gly | Tyr | Leu | Val | Ser | Gln | Gly | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Thr | Arg | Val | Asn | Pro | Asp | Leu | Leu | Leu | Pro | Ala | Gln | Asn | Ala | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Glu | Gln | Ala | Thr | Gly | Thr | Leu | Pro | Ala | Ser | Leu | Ile | Ser | Gln | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Arg | Ala | Gly | Phe | Leu | Arg | Pro | Gly | Ile | Pro | Ala | Leu | Asp | Ser | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Tyr | Lys | Lys | Trp | Leu | Leu | Leu | Ala | Gly | Gln | Ala | Thr | Arg | Ala | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Gln | Asp | Glu | Met | Leu | Asn | Pro | Pro | Val | Leu | Gly | Trp | Tyr | Pro | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Glu | Ala | Ile | Ala | Arg | Tyr | Leu | Asn | Ile | Ser | Arg | Gly | Leu | Ser | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Ala | Glu | Gln | Val | Met | Ile | Thr | Ser | Gly | Tyr | Ser | Gly | Ser | Leu | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ile | Leu | Asp | Thr | Leu | Ala | Ser | Arg | Ser | Asp | Lys | Val | Val | Phe | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Pro | Gly | Tyr | Phe | Met | Gly | Gln | Gln | Leu | Leu | Lys | Arg | Ile | Val | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Leu | His | Thr | Val | Pro | Val | Asp | Arg | Ala | Gly | Met | Asp | Thr | Asp | Tyr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Leu | Arg | Asn | His | His | Asp | Ala | Arg | Phe | Ala | Ile | Val | Thr | Pro | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Gln | Ser | Pro | Leu | Ala | Val | Thr | Leu | Ser | Leu | Pro | Arg | Lys | Gln | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Leu | Asp | Trp | Ala | Ser | Gln | Asn | Glu | Ala | Trp | Ile | Ile | Glu | Asp | Asp |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Tyr | Asp | Gly | Glu | Phe | His | Tyr | Thr | Arg | Lys | Val | Leu | Pro | Ser | Leu | Lys |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ser | Leu | Asp | Gln | His | Asp | Arg | Val | Ile | Phe | Met | Gly | Thr | Phe | Ser | Lys |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Ile | Met | Pro | Ser | Leu | Arg | Met | Gly | Tyr | Val | Val | Met | Pro | Ala | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Val | Gly | Val | Phe | Thr | Asp | Ser | Ala | Asp | Ile | Leu | Thr | Ser | Gly | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Pro | Val | Leu | Thr | Gln | Lys | Ile | Leu | Thr | Ala | Phe | Leu | Asn | Glu | Gly | His |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Phe | Phe | Arg | His | Leu | Lys | Lys | Met | Arg | Ala | Leu | Tyr | Gln | Thr | Arg | Arg |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Asp | Trp | Met | Ile | Ala | Ala | Leu | Arg | Glu | Val | Tyr | Gly | Asp | Leu | Phe | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Thr | Glu | Gln | Asn | Asp | Gly | Gly | Met | His | Ile | Val | Ala | Phe | Leu | Ala | Lys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Ser | Ala | Asp | Arg | Glu | Ile | Ala | Arg | Cys | Trp | Gln | Glu | Gln | Gln | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Gln | Val | Asn | Ala | Leu | Ser | Gly | Trp | Tyr | His | Gly | Ser | Gly | Lys | Arg | Tyr |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Gly | Leu | Val | Met | Gly | Tyr | Asn | Asn | Val | Arg | Ser | Tyr | Gln | Glu | Ala | Leu |
| | 435 | | | | | 440 | | | | | 445 | | | | |
| Asp | Leu | Leu | Glu | Arg | Pro | Lys | Arg | Gln | Thr | Leu | Glu | Leu | Leu | Ser | |
| | 450 | | | | | 455 | | | | | 460 | | | | |

<210> 7280

<211> 529

<212> PRT

<213> Enterobacter cloacae

<400> 7280

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Pro | Arg | Tyr | Ala | Ser | Gly | Val | Ile | Ile | Met | Glu | Asn | Gly | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Asn | Thr | Asp | Ser | Lys | Thr | Ala | Phe | Val | Tyr | His | Thr | Asp | Pro | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Arg | Tyr | Leu | His | Gly | Gly | Leu | Phe | Ile | His | Leu | Tyr | Trp | Phe | Asn |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Tyr | Gly | Glu | Asn | Lys | Gly | Tyr | Ser | Met | Thr | Arg | Tyr | Gln | His |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Ala | Asn | Leu | Leu | Ala | Glu | Arg | Ile | Glu | Gln | Gly | Leu | Tyr | Arg | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Gly | Glu | Arg | Leu | Pro | Ser | Val | Arg | Thr | Leu | Ser | Gln | Glu | His | Gly | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Ile | Ser | Thr | Ile | Gln | Gln | Ala | Tyr | Gln | Ile | Leu | Glu | Asn | Leu | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ile | Thr | Pro | Gln | Pro | Arg | Ser | Gly | Tyr | Phe | Val | Ser | Lys | Arg | Lys |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ala | Gln | Pro | Pro | Val | Pro | Ala | Met | Thr | Arg | Pro | Val | Gln | Arg | Pro | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Val | Thr | Gln | Trp | Asp | Glu | Val | Met | Met | Leu | Leu | Asp | Ala | Arg | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Asp Lys Glu Met Ile Ser Phe Gly Gly Gly Ser Pro Asp Ile Asn Gln
 165 170 175
 Pro Ser Leu Lys Pro Leu Trp Arg Glu Met Ser Arg Ile Ala Gln His
 180 185 190
 Asn Pro Gly Glu Met Leu Ser Tyr Asp Val Leu Asp Gly Arg Leu Glu
 195 200 205
 Leu Arg Glu Gln Ile Ala Arg Leu Met Leu Asp Gly Gly Ser Thr Val
 210 215 220
 Ala Ala Asn Glu Ile Val Ile Thr Asn Gly Cys His Gly Ala Leu Ser
 225 230 235 240
 Ile Ala Leu Leu Ser Val Cys Lys Pro Gly Asp Ile Val Ala Val Glu
 245 250 255
 Ser Pro Ser Phe His Gly Thr Met Gln Met Leu Arg Gly Phe Asp Ile
 260 265 270
 Lys Ala Ile Glu Ile Pro Thr Asp Pro Glu Thr Gly Ile Ser Ile Glu
 275 280 285
 Ala Leu Glu Leu Ala Leu Glu Gln Trp Pro Ile Lys Ala Val Ile Leu
 290 295 300
 Val Pro Asn Cys Asn Asn Pro Leu Gly Phe Ile Met Pro Glu Ala Arg
 305 310 315 320
 Lys Lys Gln Val Leu Ala Leu Ala Gln Arg His Asp Ile Val Ile Val
 325 330 335
 Glu Asp Asp Ile Tyr Gly Glu Leu Ala Ala Glu Tyr Pro Arg Pro Arg
 340 345 350
 Thr Ile His Ser Met Asp Ile Asp Gly Arg Val Leu Leu Cys Ser Ser
 355 360 365
 Phe Thr Lys Thr Val Ala Pro Gly Leu Arg Val Gly Trp Ile Val Pro
 370 375 380
 Gly Arg Tyr Tyr Asp Arg Val Met His Met Lys Tyr Ala Ala Gly Gly
 385 390 395 400
 Phe Asn Val Pro Gly Thr Gln Met Ala Val Ala Ala Phe Ile Arg Asp
 405 410 415
 Gly His Tyr His Arg His Val Arg Arg Met Arg Gln Ile Tyr Gln Gln
 420 425 430
 Asn Met Glu Thr Tyr Thr Cys Trp Val Arg Gln Tyr Phe Pro Ala Glu
 435 440 445
 Ile Cys Val Thr Arg Pro Gln Gly Ser Phe Leu Leu Trp Val Glu Leu
 450 455 460
 Pro Glu Thr Val Asp Met Val Cys Val Ser Lys Gln Leu Cys Arg Leu
 465 470 475 480
 Lys Ile Gln Ala Ala Ala Gly Ser Leu Phe Ser Ala Ser Gly Lys Tyr
 485 490 495
 Arg Asn Cys Leu Arg Ile Asn Val Ala Leu Pro Pro Thr Asp Lys Asn
 500 505 510
 Arg Glu Ala Leu Lys Lys Met Ser Thr Arg Arg Gly Gly Val Pro Arg
 515 520 525
 Leu

<210> 7281

<211> 425

<212> PRT

<213> Enterobacter cloacae

<400> 7281

Pro Met Glu Lys His Thr Glu Leu Lys Arg Ala Lys Leu Leu Ala Leu
 1 5 10 15
 Ser Leu Leu Leu Ile Ala Val Ala Ala Phe Ile Thr Thr Leu Phe Met
 20 25 30
 Pro Gln Thr Phe Trp Val Arg Gly Val Lys Ala Ile Ala Glu Ala Ala
 35 40 45

Met Val Gly Ala Leu Ala Asp Trp Phe Ala Val Val Ala Leu Phe Arg
 50 55 60
 Arg Val Pro Ile Pro Phe Ile Ser Arg His Thr Ala Ile Ile Pro Arg
 65 70 75 80
 Asn Lys Asp Arg Ile Gly Asp Asn Leu Gly Gln Phe Val Gln Glu Lys
 85 90 95
 Phe Leu Asp Thr Gln Ser Leu Val Asp Leu Ile Arg Arg Tyr Glu Pro
 100 105 110
 Ala Gln Met Ile Gly Thr Trp Phe Ser Gln Pro Asp Asn Ala Arg Arg
 115 120 125
 Val Gly Gln His Leu Val Gln Val Met Gly Gly Phe Leu Glu Leu Thr
 130 135 140
 Asp Asp Gly Arg Ile Gln Arg Leu Leu Lys Arg Ala Val His Lys Ala
 145 150 155 160
 Ile Asp Lys Val Asp Leu Thr Glu Thr Ser Ala Val Met Leu Glu Ser
 165 170 175
 Met Thr Lys Asn Asn Arg His Gln Val Leu Leu Asp Ala Ile Ile Asn
 180 185 190
 Arg Leu Ile Thr Leu Ile Gln Arg Glu Ser Thr Arg Glu Phe Ile Ala
 195 200 205
 Asp Gln Ile Val His Trp Leu Lys Thr Glu His Pro Arg Lys Ala Met
 210 215 220
 Val Leu Pro Thr Glu Trp Leu Gly Asp Gln Ser Ala Glu Met Val Ser
 225 230 235 240
 Asn Ala Val Asn Thr Leu Leu Asp Asp Ile Ser His Asp Arg Thr His
 245 250 255
 Gln Ile Arg Gln Ala Phe Asp Arg Ala Thr Ile Lys Phe Ile Asp Asn
 260 265 270
 Leu Lys Asn Asp Pro Glu Met Thr Ala Lys Ala Glu Asn Ile Lys His
 275 280 285
 Tyr Leu Lys Asn Asp Glu Ala Phe Asn Arg Tyr Leu Gly Glu Met Trp
 290 295 300
 Ala Asp Leu Arg Gln Trp Leu Lys Asn Asp Met Gln Ser Asp Asp Ser
 305 310 315 320
 Arg Val Lys Gln Arg Ile Ala Asn Ala Gly Leu Trp Phe Gly Glu Thr
 325 330 335
 Leu Thr Asn Asp Ala Ser Leu Arg Ala Ser Leu Asn Glu His Leu Glu
 340 345 350
 Gln Ala Ala His Arg Val Ala Pro Asp Phe Ala Ala Phe Leu Thr Arg
 355 360 365
 His Ile Ser Asp Thr Val Lys Ser Trp Asp Ala Lys Asp Met Ser Arg
 370 375 380
 Gln Ile Glu Leu Asn Ile Gly Lys Asp Leu Gln Phe Ile Arg Val Asn
 385 390 395 400
 Gly Thr Leu Val Gly Gly Thr Ile Gly Leu Ile Leu Phe Leu Leu Ser
 405 410 415
 Gln Leu Pro Ala Val Leu Gly His
 420 425

<210> 7282

<211> 176

<212> PRT

<213> Enterobacter cloacae

<400> 7282

Gly Thr Arg Met Arg Val Pro Ala Thr His Ala Cys Pro Leu Phe Ile
 1 5 10 15
 Asn Pro Ala Trp Ile Thr Cys Gly Ile Ala Cys Ser Arg Ser Thr Ser
 20 25 30
 Ser Ser Arg Ile Val Gly Asp Leu Pro Pro Asn Ser Ser Val Thr Arg
 35 40 45

Leu Lys Leu Ser Ala Ala Leu Arg Arg Ile Ala Leu Pro Val Phe Val
 50 55 60
 Glu Pro Val Asn Glu Ile Phe Ala Thr Ser Gly Trp Arg Leu Arg Val
 65 70 75 80
 Ser Pro Thr Val Ser Pro Arg Pro Val Thr Met Leu Asn Thr Pro Gly
 85 90 95
 Gly Ser Ala Ala Ser Arg Ser Ala Ser Val Thr Ile Cys Val Cys Arg
 100 105 110
 Ala Leu Ile Ser Leu Gly Leu Met Thr Ala Val Gln Pro Ala Ala Ser
 115 120 125
 Ala Ala Ala Ser Leu Pro Gln Ile Asn Pro Ala Ser Leu Phe His Gly
 130 135 140
 Val Ile Ser Pro Ala Thr Pro Ser Gly Val Ile Cys Thr Val Ala Ala
 145 150 155 160
 Pro Ala Glu Val Thr Asn Ser Asn Ala Ser Ser Ala Ser Met Ala
 165 170 175

<210> 7283

<211> 302

<212> PRT

<213> Enterobacter cloacae

<400> 7283

Ser Met His Arg Ser Gly Leu Thr Glu Leu Glu Val Val Met Ala Val
 1 5 10 15
 Val Arg Arg Gly Ser Phe Arg Gly Ala Ala Gln Glu Leu Gly Met Ser
 20 25 30
 Ala Thr Ala Val Ser Asn Ala Ile Ala Gly Leu Glu Ser Arg Leu Glu
 35 40 45
 Thr Arg Leu Phe Asn Arg Thr Thr Arg Ser Val Ala Leu Thr Asp Ala
 50 55 60
 Gly Gln Arg Tyr Val Ala Arg Ile Gly Pro Ala Leu Gln Glu Ile Arg
 65 70 75 80
 Leu Ala Gly Glu Glu Ile His Ser Asp Thr Gly Glu Pro Ala Gly Thr
 85 90 95
 Leu Arg Leu Asp Val Pro Asn His Ile Gly Thr Leu Phe Leu Asp Gln
 100 105 110
 Leu Leu Ile Asp Phe Met Ile Arg Tyr Pro Lys Met Arg Val Glu Thr
 115 120 125
 Val Ser Glu Ala Arg Met Ile Asp Ile Val Ala Glu Gly Tyr Asp Ala
 130 135 140
 Gly Ile Arg Leu Glu Glu Ser Val Pro Gln Asp Met Ile Ala Val Pro
 145 150 155 160
 Leu Thr Gly Glu Ile Arg Gln Leu Val Thr Ala Thr Pro Asp Tyr Phe
 165 170 175
 Ala Arg His Gly Ile Pro Glu Thr Pro Asp Asp Leu Leu Ser His Gln
 180 185 190
 Gly Ile Gly Met Arg Met Ala His Gly Gly Ile Tyr Arg Trp Glu Leu
 195 200 205
 Ala Arg Arg Gly Glu Thr Tyr Ala Leu Ala Val Pro Pro Arg Phe Ala
 210 215 220
 Thr Ser Asp Leu Phe Ala Ser Ile Arg Ala Val Lys Ala Gly Leu Gly
 225 230 235 240
 Val Gly Phe Leu Pro Glu Leu Tyr Ile Gln Asp Glu Leu Lys Ser Gly
 245 250 255
 Glu Leu Val Ser Val Leu Asn Asp Trp Ala Gln Pro Phe Ala Gly Leu
 260 265 270
 Arg Leu Tyr Tyr Pro Gly His Arg His Val Pro Pro Gly Leu Arg Ala
 275 280 285
 Leu Val Ala Met Ile Arg Glu Arg Gly Ile Ile Pro Gly
 290 295 300

<210> 7284
 <211> 350
 <212> PRT
 <213> Enterobacter cloacae

<400> 7284

```

Pro Ala Arg Asp Ile Glu Ile Ala Gly Tyr Arg Leu Ala Gln Arg Ile
1      5      10      15
Pro Ala Gln Asn Gly Arg Val Glu His Phe Ile Leu Thr His Gly Ala
20      25      30
Arg Arg Leu Ala Arg Gln Gln Gln Pro Phe Phe Ile Gly Glu Ala Val
35      40      45
Glu Gly Gly Asn Ala Gly Ala Gln Lys Thr Gly Pro Phe Ala Leu Ala
50      55      60
Asn Gln Arg Arg Arg Gln Arg Ala Gly Arg Leu Phe Cys Gly Gly Val
65      70      75      80
Leu Arg Gly Gln Gln Lys Ile Arg Ile His Pro Arg Pro Ala Arg Ala
85      90      95
Leu Ala His Gln Ile Pro Phe Ala Arg Gln Asn Gly Ile Arg Arg Leu
100     105     110
Asp Gly Phe Ala Arg His Leu Gln Leu Phe Arg Gln Gln Ala Asp Gly
115     120     125
Arg Tyr Pro Val Ala Arg Leu Gln His Ala Ala His Asp Val Val Ala
130     135     140
Ile Ala Gly Ile Asn Leu Val Ile Ala Arg Leu His Val Leu Pro Asn
145     150     155     160
Phe Thr Leu Phe Val Ser Phe Tyr Tyr Val Met Asn Gly Val Asp Leu
165     170     175
Leu His Arg Met Thr His Ala Ala Gln Lys Arg Gly Lys Thr Met Ser
180     185     190
Thr Arg Val Asn His His Lys Ala Thr Pro Ala Leu Thr Asn Ala Leu
195     200     205
Ser Ala Leu Ser Met Glu Val Ala Lys Thr Ser Ile Asp Pro Ala Leu
210     215     220
Lys His Leu Ile Asp Ile Arg Val Ser Gln Leu Asn Gly Cys Thr Phe
225     230     235     240
Cys Leu Asp Met His Ser Lys Glu Ala Lys Ile Ala Gly Glu Arg Glu
245     250     255
Leu Arg Leu Tyr His Leu Ala Ala Trp Arg Glu Ser Pro Leu Phe Ser
260     265     270
Ala Arg Glu Lys Ala Ala Leu Ala Phe Thr Glu Ala Leu Thr Gln Ile
275     280     285
Gly Val His Gly Val Ser Asp Ala Leu Tyr Arg Ser Val Ala Glu His
290     295     300
Phe Ser Asp Val Glu Ile Ser Glu Leu Asn Phe Ala Ile Val Ala Ile
305     310     315     320
Asn Ala Trp Asn Arg Leu Gly Ile Thr Ser Arg Met Glu Pro Gly Ser
325     330     335
Leu Asp Ala Ala Tyr Gly Leu Asn Lys Ala Asn Leu Glu
340     345     350

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<210> 7285
 <211> 165
 <212> PRT
 <213> Enterobacter cloacae

<400> 7285

```

Trp Arg Thr Thr Arg Gly Leu Pro Met Ser Glu Glu Asp Leu Phe Ser
1      5      10      15
Arg Arg Pro Met Gly Met Arg Met Ala Met Ile Val Arg Gln Trp Arg

```


[illegible]

<211> 248

<213> Enterobacter cloacae

| | | | | | | | | | | | | | | | |
|------------|-----|------------|------------|------------|-----|-----|-----|------------|------------|-----|------------|-----|-----|-----------|-----|
| Arg 1 | Met | Met | Ile | Ser 5 | Trp | Pro | Leu | Arg | Ser 10 | Pro | His | Pro | Gly | Arg 15 | |
| Met | Leu | Lys | Thr | Ser | Leu | Pro | Ser | Asp 25 | Asn | Ser | Ala | Met | Leu | Glu | Lys |
| Ala | Ile | Ala | Ala | Val | Ala | Ala | Ala | Met | Ala | Asp | Pro | Ser | Arg | Val | Lys |
| Met | Leu | Cys | Ala | Leu | Met | Asp | Gly | Arg | Ala | Trp | Thr | Ala | Thr | Glu | Leu |
| Ser 65 | Ala | Ala | Ala | Asp 70 | Val | Ala | Pro | Ser | Thr | Ala | Ser | Gly | His | Leu | Ala |
| Arg | Leu | Val | Glu | Gly 85 | Gln | Leu | Ile | Thr | Cys 90 | Leu | Ser | Gln | Gly | Arg | His |
| Arg | Tyr | Tyr | Arg 100 | Leu | Ala | Gly | His | Asp 105 | Val | Ala | Ala | Leu | Val | Glu | Gln |
| Met | Met | Gly 115 | Leu | Ser | Trp | Ser | Arg | Ile | Thr | Pro | Pro | Glu | Thr | Ser | Ala |
| Pro | Lys | Ala | Met | Arg | Glu | Ala | Arg | Thr | Cys | Tyr | Asp 140 | His | Leu | Ala | Gly |
| Ala 145 | Val | Ala | Val | Gln 150 | Ile | Tyr | Asp | Phe | Met | Gln | Ala | Glu | Gly | Trp | Leu |
| Glu | Ala | Asp | Gly | Ser 165 | Ala | Leu | Thr | Leu | Tyr 170 | Gly | Arg | Glu | Gln | Phe | Leu |
| Ala | Leu | Gly | Ile 180 | Pro | Leu | Ser | Ala | His 185 | Pro | Arg | Arg | Lys | Ala | Cys | Cys |
| Ala | Cys | Leu | Asp 195 | Trp | Ser | Glu | Arg | Arg | Phe | His | Leu | Gly | Gly | Glu | Ala |
| Gly | Ala | Ala | Leu | Leu | Ile | His | Met | Glu | Ser | Lys | Gly | Trp | Ile | Gln | Arg |
| Val 225 | Ala | Gly | Tyr | Arg | Glu | Val | Val | Val | Thr | Ala | Ser | Gly | Lys | Ser | Ala |
| Val | Arg | Lys | His 245 | Phe | Ser | Arg | | | | | | | | | |

<211> 63

<212> PRT

<213> Enterobacter cloacae

<400> 7287

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | His | Trp | His | Ser | Glu | Glu | Ser | Ile | Met | Glu | Phe | Tyr | Glu | Asn | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Lys | Arg | Pro | Phe | Ile | Ala | Phe | Val | Trp | Val | Ala | Lys | Thr | Leu | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Trp | Tyr | Arg | Ile | Asn | Arg | Thr | Arg | Arg | Ile | Leu | Ser | Gln | Met | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Glu | Gln | Leu | Lys | Asp | Val | Gly | Leu | Ser | Arg | Tyr | Asp | Val | | |
| | 50 | | | | | 55 | | | | | 60 | | | | |

<210> 7288

<211> 483

<212> PRT

<213> Enterobacter cloacae

<400> 7288

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Thr | Gly | Leu | Thr | Gln | Pro | Glu | Glu | Val | Tyr | Met | His | Thr | Ile | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Ile | Phe | Ile | Asn | Gly | Glu | Phe | Val | Thr | Pro | His | Gly | Thr | Glu | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Asp | Leu | Tyr | Asn | Pro | Ala | Thr | Ala | Gln | Val | Ile | Gly | Gln | Val | Arg |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Leu | Ala | Asp | Glu | Val | Asp | Ala | Glu | Arg | Ala | Ile | Ala | Ala | Ala | Lys | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Phe | Pro | Ala | Trp | Ser | Gln | Thr | Thr | Lys | Gln | Glu | Arg | Ile | Ala | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Lys | Arg | Met | His | Ala | Ala | Val | Ala | Ala | Arg | His | Asp | Ala | Leu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Ala | Val | Ile | Glu | Glu | Tyr | Gly | Ala | Pro | Ala | Ser | Arg | Ser | Ala | Trp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Ala | Ser | Tyr | Pro | Ala | Glu | Val | Ile | Ala | Gln | Ala | Ile | Glu | Ala | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Ala | Phe | Glu | Phe | Val | Thr | Ser | Ala | Gly | Ala | Ala | Thr | Val | Gln | Met |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Pro | Leu | Gly | Val | Ala | Gly | Leu | Ile | Thr | Pro | Trp | Asn | Ser | Asp | Ala |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Gly | Phe | Ile | Cys | Gly | Lys | Leu | Ala | Ala | Ala | Leu | Ala | Ala | Gly | Cys | Thr |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ala | Val | Ile | Lys | Pro | Ser | Glu | Met | Ser | Ala | Leu | Gln | Thr | Gln | Ile | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Glu | Ala | Leu | Arg | Asp | Ala | Ala | Leu | Pro | Pro | Gly | Val | Phe | Asn | Ile |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Val | Thr | Gly | Arg | Gly | Glu | Thr | Val | Gly | Glu | Thr | Leu | Ser | Arg | His | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Val | Ala | Lys | Ile | Ser | Phe | Thr | Gly | Ser | Thr | Asn | Thr | Gly | Lys | Ala |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | |
| Ile | Leu | Arg | Asn | Ala | Ala | Glu | Ser | Phe | Lys | Arg | Val | Thr | Leu | Glu | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Gly | Lys | Ser | Pro | Thr | Ile | Leu | Leu | Asp | Asp | Val | Asp | Leu | Glu | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Ile | Pro | Gln | Val | Ile | Gln | Ala | Gly | Phe | Met | Asn | Ser | Gly | Gln | Ala |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Cys | Val | Ala | Gly | Thr | Arg | Ile | Leu | Val | Pro | Tyr | Ser | Arg | Lys | Ala | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Glu | Thr | Ala | Leu | Ala | Gln | Ala | Val | Ala | Ala | Val | Lys | Ser | Gly | Asp |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Pro | Arg | Asn | Ser | Thr | Thr | Asp | Val | Gly | Pro | Met | Val | Ser | Glu | Lys | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |

Trp Leu Arg Val Gln Gly Tyr Ile Arg Lys Gly Ile Glu Glu Gly Ala
 340 345 350
 Arg Leu Leu Ala Gly Gly Glu Gly Arg Pro Glu Gly Thr Arg Asp Gly
 355 360 365
 Trp Phe Val Arg Pro Thr Leu Phe Ala Gly Val Asn Asn Arg Met Thr
 370 375 380
 Ile Ala Arg Asp Glu Ile Phe Gly Pro Val Leu Cys Val Ile Pro Tyr
 385 390 395 400
 Gln Asp Glu Ala Glu Ala Ile Ala Ile Ala Asn Asp Thr Glu Tyr Gly
 405 410 415
 Leu Ser Ala Met Val Leu Gly Gly Asp Val Asp Arg Ala Arg Arg Val
 420 425 430
 Ala Gln Gln Ile Val Ser Gly Arg Val Leu Val Asn Thr Leu Ala His
 435 440 445
 Glu Pro Lys Ala Pro Phe Gly Gly Phe Lys His Ser Gly Val Gly Arg
 450 455 460
 Glu Met Gly Glu Trp Gly Ile Arg Ala Phe Met Glu Pro Arg Ser Val
 465 470 475 480
 Leu Gly

<210> 7289

<211> 133

<212> PRT

<213> Enterobacter cloacae

<400> 7289

Ser Phe Ala Leu Tyr Arg Ser Ile Val Leu Phe His Pro Ala Phe Ser
 1 5 10 15
 Pro Gln His His Ser Gly Glu Thr Ile Met Ile Ala Val Leu Phe Glu
 20 25 30
 Ala Lys Ala Ala Pro Ala His Gln Ala Arg Tyr Leu Gln Leu Ala Ala
 35 40 45
 Glu Leu Lys Pro Leu Leu Ala Asp Ile Asp Gly Phe Ile Asp Ile Glu
 50 55 60
 Arg Phe Gln Ser Leu Thr Thr Asp Gly Lys Ile Leu Ser Leu Ser Trp
 65 70 75 80
 Trp Arg Asp Glu Glu Ala Val Arg Arg Trp Lys Gln Asn Val Phe His
 85 90 95
 Gln Ala Ala Gln Ala Glu Gly Arg Ala Leu Ile Phe Ser Phe Tyr Arg
 100 105 110
 Ile Arg Val Ala Gln Leu Val Arg Glu Tyr Ser Ser Glu Thr Gly Gly
 115 120 125
 His Ala Asp Val
 130

<210> 7290

<211> 359

<212> PRT

<213> Enterobacter cloacae

<400> 7290

Asp Arg Lys Ile Met Thr Pro Glu Gln Lys Phe Ala Arg Trp Val Arg
 1 5 10 15
 Val Ser Ile Ala Ser Phe Leu Leu Met Phe Val Tyr Phe Ile Val Ala
 20 25 30
 Asp Ile Trp Ile Pro Leu Thr Pro Asp Ser Thr Val Met Arg Val Val
 35 40 45
 Thr Pro Val Ser Ala Arg Val Ser Gly Tyr Val Ala Ala Val His Val
 50 55 60
 His Asn Asn Ser Gln Val Lys Lys Gly Asp Leu Leu Phe Glu Leu Asp

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | 75 | | | | 80 | |
| Ala | Thr | Pro | Phe | Arg | Asn | Lys | Val | Glu | Ala | Gln | Ile | Ala | Leu | Glu |
| | | | | 85 | | | | | 90 | | | | 95 | |
| Gln | Ala | Arg | Leu | Ser | Asn | Asp | Gln | Leu | Asp | Ala | Gln | Ile | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Gln | Ala | Ser | Leu | Lys | Thr | Ala | Val | Leu | Thr | Ala | Arg | Asn | Asp | Lys |
| | | | 115 | | | | | 120 | | | | | 125 | |
| Thr | Phe | Asp | Arg | Tyr | Gln | Lys | Leu | Ser | Thr | Leu | Gln | Asn | Val | Ser |
| | | | 130 | | | | | 135 | | | | | 140 | |
| Ala | Asp | Leu | Asp | Lys | Val | Arg | Thr | Thr | Trp | Gln | Ser | Ser | Glu | Gln |
| 145 | | | | | | | | | | 155 | | | | 160 |
| Val | Ser | Ser | Ile | Gln | Ala | Asn | Ile | His | Asn | Leu | Arg | Ile | Gln | Arg |
| | | | | 165 | | | | | | 170 | | | | 175 |
| Glu | Arg | Asp | Glu | His | Arg | Asn | Val | Thr | Leu | Gln | Lys | Tyr | Arg | Asn |
| | | | 180 | | | | | | 185 | | | | | 190 |
| Leu | Asp | Glu | Ala | Glu | Leu | Asn | Leu | Gly | Trp | Thr | Lys | Val | Tyr | Ala |
| | | | 195 | | | | | 200 | | | | | 205 | |
| Ala | Asp | Gly | Thr | Val | Ser | Asn | Leu | Gln | Leu | Ser | Pro | Gly | Phe | Tyr |
| | | | 210 | | | | | 215 | | | | | | 220 |
| Ser | Ser | Gly | Ser | Ala | Ala | Leu | Ala | Leu | Val | Asn | Thr | Arg | Ile | Asp |
| 225 | | | | | | | 230 | | | | | | | 240 |
| Val | Ala | Asp | Phe | Arg | Glu | Lys | Ser | Leu | Arg | His | Thr | His | Gln | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Asp | Ala | Ala | Val | Val | Phe | Asp | Ala | Phe | Pro | Gly | His | Val | Phe | Arg |
| | | | 260 | | | | | 265 | | | | | | 270 |
| His | Val | Thr | Ser | Ser | Asp | Ala | Gly | Ile | Leu | Ala | Gly | Gln | Glu | Ala |
| | | | 275 | | | | | 280 | | | | | | 285 |
| Asn | Gly | Gln | Leu | Ser | Glu | Pro | Glu | Thr | Ser | Asn | Arg | Trp | Val | Arg |
| | | | 290 | | | | | 295 | | | | | | 300 |
| Ala | Gln | Arg | Met | Arg | Ile | His | Val | Ala | Leu | Asp | Glu | Ala | Leu | Pro |
| 305 | | | | | | | 310 | | | | | | | 320 |
| Pro | Leu | Pro | Thr | Gly | Ala | Arg | Ala | Thr | Val | Gln | Leu | Tyr | Asn | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 |
| Gly | Pro | Phe | Ala | Arg | Phe | Phe | Ser | Gly | Met | Gln | Ile | His | Leu | Val |
| | | | 340 | | | | | 345 | | | | | | 350 |
| Leu | Leu | His | Tyr | Val | Tyr | | | | | | | | | |
| | | | 355 | | | | | | | | | | | |

<210> 7291

<211> 316

<212> PRT

<213> Enterobacter cloacae

<400> 7291

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Pro | Gln | Asn | Asn | Glu | Glu | Ser | Arg | Met | Thr | Met | Ile | Lys | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Thr | Gly | Ser | Ala | Val | Leu | Leu | Ala | Ala | Leu | Ser | Leu | Pro | Leu | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Glu | Pro | Val | Lys | Val | Gly | Ser | Lys | Ile | Asp | Thr | Glu | Gly | Ala |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Leu | Leu | Gly | Asn | Ile | Ile | Leu | Gln | Val | Leu | Glu | Ser | His | Gly | Val | Lys |
| | | | 50 | | | | 55 | | | | | 60 | | | |
| Thr | Val | Asn | Lys | Val | Gln | Leu | Gly | Thr | Thr | Pro | Val | Val | Arg | Gly | Ala |
| 65 | | | | | | 70 | | | | 75 | | | | | 80 |
| Ile | Thr | Ser | Gly | Glu | Leu | Asp | Ile | Tyr | Pro | Glu | Tyr | Thr | Gly | Asn | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Phe | Phe | Phe | Lys | Asp | Glu | Asn | Asp | Pro | Ala | Trp | Lys | Asn | Ala | Lys |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Ala | Gly | Tyr | Glu | Lys | Val | Lys | Lys | Leu | Asp | Ala | Glu | Lys | Asn | Lys | Leu |
| | | | 115 | | | | | 120 | | | | | 125 | | |
| Val | Trp | Leu | Thr | Pro | Ala | Pro | Ala | Asn | Asn | Thr | Trp | Thr | Ile | Ala | Val |

| | | |
|---------------------|-------------------------|-------------------------|
| 130 | 135 | 140 |
| Arg Lys Asp Ile Ala | Glu Lys Gly Lys Leu Thr | Ser Leu Asp Asp Leu |
| 145 | 150 | 155 |
| Ser Arg Tyr Leu Lys | Glu Lys Gly Glu Phe Lys | Leu Ala Ala Ser Ala |
| 165 | 170 | 175 |
| Glu Phe Ile Glu Arg | Ala Asp Ala Leu Pro | Ala Phe Glu Lys Ala Tyr |
| 180 | 185 | 190 |
| Asp Phe Lys Leu Asp | Gln Ala Gln Leu Leu Ser | Leu Ala Gly Gly Asp |
| 195 | 200 | 205 |
| Thr Ala Val Thr Ile | Lys Ala Ala Ala Gln Gln | Thr Ser Gly Val Asn |
| 210 | 215 | 220 |
| Ala Ala Met Ala Tyr | Gly Thr Asp Gly Pro Val | Ala Ala Leu Gly Leu |
| 225 | 230 | 235 |
| Gln Thr Leu Thr Asp | Pro Lys Gly Val Gln Pro | Ile Tyr Ala Pro Thr |
| 245 | 250 | 255 |
| Pro Val Val Arg Glu | Ala Val Leu Lys Ala Tyr | Pro Asp Ile Ala Glu |
| 260 | 265 | 270 |
| Trp Leu Lys Pro Val | Phe Glu Lys Leu Asp | Ala Lys Thr Leu Gln Gln |
| 275 | 280 | 285 |
| Leu Asn Ala Ser Ile | Ala Val Glu Gly Leu Asp | Ala Lys Lys Val Ala |
| 290 | 295 | 300 |
| Ala Asp Phe Leu Lys | Gln Gln Gly Leu Val Lys | |
| 305 | 310 | 315 |

<210> 7292

<211> 390

<212> PRT

<213> Enterobacter cloacae

<400> 7292

| | | |
|---------------------|---------------------|-------------------------|
| Arg Asp Lys Ala Val | Pro Ile Lys Cys His | Asn Arg Val Leu Leu Leu |
| 1 | 5 | 10 |
| Leu Ala Cys Val Ala | Ile Ala Ala Val Ala | Leu Pro Phe Val Asn Val |
| 20 | 25 | 30 |
| Ala Pro Asn Arg Leu | Val Ser Gly Glu Pro | Arg Ala Leu Trp Gln Ile |
| 35 | 40 | 45 |
| Trp Ala Phe Thr Pro | Leu Leu Gly Ala Ala | Leu Ala Ser Thr Val |
| 50 | 55 | 60 |
| Ala Leu Ala Phe Trp | Pro Gly Arg Thr Ala | Leu Trp Leu Thr Phe Leu |
| 65 | 70 | 75 |
| Leu Ser Glu Ala Leu | Phe Ile Val Leu Phe | Trp Ser Ala Gly Gln Ala |
| 85 | 90 | 95 |
| Ala Thr Gln Met Ala | Ala Val Glu Ser Pro | Leu Ala Arg Thr Ser Val |
| 100 | 105 | 110 |
| Gly Ser Gly Leu Trp | Leu Trp Leu Ala Leu | Cys Leu Leu Val Cys Ser |
| 115 | 120 | 125 |
| Asp Ala Ile Arg Arg | Leu Thr Pro Gln Pro | Val Trp Arg Trp Leu Leu |
| 130 | 135 | 140 |
| Asn Ala Gln Phe Trp | Val Ile Pro Leu Leu | Ile Leu Phe Ser Gly Asp |
| 145 | 150 | 155 |
| Leu Asn Gln Leu Ser | Leu Leu Lys Glu Tyr | Val Asn Arg Gln Glu Val |
| 165 | 170 | 175 |
| Phe Asp Asn Ala Leu | Ala Gln His Leu Thr | Ile Leu Phe Gly Thr Leu |
| 180 | 185 | 190 |
| Ile Pro Ala Leu Leu | Leu Gly Val Pro Leu | Gly Met Trp Cys Tyr Arg |
| 195 | 200 | 205 |
| His Thr Ser Arg Gln | Gly Ala Val Phe Thr | Val Leu Asn Val Ile Gln |
| 210 | 215 | 220 |
| Thr Ile Pro Ser Val | Ala Leu Phe Gly Leu | Leu Ile Ala Pro Leu Ala |
| 225 | 230 | 235 |
| Gly Leu Val Lys Ser | Phe Pro Ala Leu Ala | Ala Ala Gly Ile Ala Gly |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Thr | Gly | Leu | Thr | Pro | Ala | Leu | Ile | Ala | Leu | Val | Leu | Tyr | Ala | Leu | Leu | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Pro | Leu | Val | Arg | Gly | Val | Val | Ala | Gly | Leu | Ser | Gln | Val | Pro | Pro | Asp | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Val | Leu | Glu | Ser | Ala | His | Ala | Met | Gly | Met | Ser | Ala | Arg | Gln | Cys | Phe | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Trp | Lys | Ile | Gln | Leu | Pro | Leu | Ala | Leu | Pro | Leu | Leu | Val | Arg | Ser | Leu | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Arg | Val | Val | Thr | Val | Gln | Thr | Val | Gly | Met | Ala | Val | Ile | Ala | Ala | Leu | | |
| | | | 325 | | | | | 330 | | | | | | 335 | | | |
| Ile | Gly | Ala | Gly | Gly | Phe | Gly | Ala | Leu | Val | Phe | Gln | Gly | Leu | Leu | Ser | | |
| | | 340 | | | | | | 345 | | | | | 350 | | | | |
| Ser | Ala | Leu | Asp | Leu | Val | Leu | Leu | Gly | Val | Val | Pro | Thr | Ile | Ala | Leu | | |
| | | 355 | | | | 360 | | | | | 365 | | | | | | |
| Ala | Val | Val | Leu | Asp | Ala | Leu | Phe | Ala | Leu | Trp | Leu | Ala | Leu | Leu | Arg | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Arg | Arg | Ala | Asn | Asp | | | | | | | | | | | | | |
| 385 | | | | | 390 | | | | | | | | | | | | |

<210> 7293

<211> 368

<212> PRT

<213> Enterobacter cloacae

<400> 7293

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ser | Gly | Arg | Ala | Ala | Leu | Glu | His | Trp | Ser | Ser | Arg | Gly | Cys | Ser | Val | | |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Ala | Arg | Trp | Ile | Trp | Cys | Cys | Trp | Ala | Ser | Cys | Pro | Gln | Leu | Arg | Trp | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Arg | Ser | Tyr | Trp | Met | Pro | Cys | Leu | Pro | Cys | Gly | Ser | Arg | Cys | Ser | Gly | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Glu | Glu | Pro | Met | Ile | Glu | Phe | His | Asp | Val | Ser | Lys | Thr | Phe | Ala | Gly | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Arg | Pro | Ala | Ala | Ser | His | Leu | Asn | Leu | His | Phe | Ala | Glu | Gly | Ala | Phe | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Ser | Ile | Leu | Ile | Gly | Thr | Ser | Gly | Ser | Gly | Lys | Ser | Thr | Thr | Leu | Lys | | |
| | | 85 | | | | | 90 | | | | | | 95 | | | | |
| Met | Ile | Asn | Arg | Leu | Val | Glu | His | Asp | Ser | Gly | Thr | Ile | Arg | Phe | Ala | | |
| | | 100 | | | | 105 | | | | | | 110 | | | | | |
| Gly | Glu | Glu | Ile | Arg | Ser | Leu | Pro | Val | Leu | Glu | Leu | Arg | Arg | Arg | Met | | |
| | 115 | | | | | 120 | | | | 125 | | | | | | | |
| Gly | Tyr | Ala | Ile | Gln | Ser | Ile | Gly | Leu | Phe | Pro | His | Trp | Thr | Val | Ala | | |
| | 130 | | | | 135 | | | | | 140 | | | | | | | |
| Gln | Asn | Ile | Ala | Thr | Val | Pro | Gln | Leu | Glu | Lys | Trp | Ser | Arg | Gly | Lys | | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Ile | Asn | Glu | Arg | Val | Asp | Glu | Leu | Met | Ala | Leu | Leu | Gly | Leu | Asp | Ala | | |
| | | 165 | | | | | | 170 | | | | | 175 | | | | |
| Ser | Leu | Arg | Asn | Arg | Tyr | Pro | His | Gln | Leu | Ser | Gly | Gly | Gln | Gln | Gln | | |
| | | 180 | | | | 185 | | | | | | 190 | | | | | |
| Arg | Val | Gly | Val | Ala | Arg | Ala | Leu | Ala | Ala | Asn | Pro | Gln | Val | Leu | Leu | | |
| | 195 | | | | | 200 | | | | | 205 | | | | | | |
| Met | Asp | Glu | Pro | Phe | Gly | Ala | Leu | Asp | Pro | Val | Thr | Arg | Gly | Ala | Leu | | |
| | 210 | | | | 215 | | | | | 220 | | | | | | | |
| Gln | Ala | Glu | Met | Ser | Arg | Ile | His | Arg | Ile | Leu | Gly | Arg | Thr | Ile | Val | | |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Leu | Val | Thr | His | Asp | Ile | Asp | Glu | Ala | Leu | Arg | Leu | Ala | Asp | Arg | Leu | | |
| | | | 245 | | | | | 250 | | | | | 255 | | | | |
| Val | Leu | Met | Asp | His | Gly | Glu | Val | Val | Gln | Gln | Gly | Thr | Pro | Leu | Glu | | |
| | | 260 | | | | | 265 | | | | | 270 | | | | | |
| Leu | Leu | Thr | Ser | Pro | Ala | Asn | Asp | Phe | Val | Arg | Glu | Phe | Phe | Gly | Arg | | |

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| | | 275 | | | | | 280 | | | | | 285 | | | | | | |
| Ser | Glu | Leu | Gly | Val | Arg | Leu | Leu | Ser | Leu | Arg | Thr | Val | Arg | Asp | Tyr | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | |
| Leu | Arg | Pro | Gln | Asp | Ala | Gln | Ile | Gly | Gly | Glu | Pro | Leu | His | Asp | Gly | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | |
| Met | Ser | Leu | Arg | Asp | Ala | Leu | Ser | Ala | Phe | Val | Ala | Arg | Gln | Cys | Glu | | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | | |
| Val | Leu | Pro | Val | Ala | Asp | Gly | Gln | Gly | Thr | Pro | Cys | Gly | Thr | Ile | His | | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | | |
| Phe | Arg | Asp | Leu | Leu | Ala | Gly | Glu | Val | Thr | Arg | Glu | Val | Gly | Pro | | | | |
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<210> 7294

$\langle 211 \rangle$ 257

<212> PRT

<213> Enterobacter cloacae

<400> 7294

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| Arg | Met | Leu | Arg | Val 20 | Leu | Ile | Val | Asp 25 | Asp | Glu | Pro | Leu | Ala 30 | Arg | Glu |
| Asn | Leu | Arg | Val | Leu 35 | Leu | Gln | Glu 40 | Gln | Ser | Asp | Ile | Glu 45 | Val | Val | Gly |
| Glu | Cys 50 | Ala | Asn | Ala | Ile | Glu 55 | Gly | Ile | Gly | Ala | Val 60 | His | Lys | Leu | Arg |
| Pro 65 | Asp | Val | Leu | Phe 70 | Leu | Asp | Ile | Gln | Met | Pro 75 | Arg | Ile | Ser | Gly | Leu 80 |
| Glu | Met | Val | Gly | Met 85 | Leu | Asp | Pro | Glu | His 90 | Arg | Pro | Tyr | Ile | Val 95 | Phe |
| Leu | Thr | Ala | Phe 100 | Asp | Glu | Tyr | Ala | Val 105 | Lys | Ala | Phe | Glu | Glu 110 | His | Ala |
| Phe | Asp | Tyr 115 | Leu | Leu | Lys | Pro | Ile 120 | Glu | Glu | Lys | Arg | Leu 125 | Glu | Lys | Thr |
| Leu | Thr 130 | Arg | Leu | Arg | Gln | Glu 135 | Arg | Thr | Ala | Gln | Asp 140 | Val | Thr | Leu | Leu |
| Pro 145 | Glu | His | Gln | Gln 150 | Pro | Leu | Lys | Phe | Ile | Pro 155 | Cys | Thr | Gly | His | Ser 160 |
| Arg | Ile | Tyr | Leu | Leu 165 | Gln | Met | Asp | Asp | Val 170 | Ala | Phe | Val | Ser | Ser 175 | Arg |
| Leu | Ser | Gly | Val 180 | Tyr | Val | Thr | Ser | Ala 185 | Glu | Gly | Asn | Glu | Gly 190 | Phe | Thr |
| Glu | Leu | Thr 195 | Leu | Arg | Thr | Leu | Glu 200 | Ser | Arg | Thr | Pro | Leu 205 | Ile | Arg | Cys |
| His | Arg 210 | Gln | Tyr | Leu | Val | Asn 215 | Met | Ala | His | Leu | Lys 220 | Glu | Ile | Arg | Leu |
| Glu 225 | Asp | Asn | Gly | Gln | Ala 230 | Glu | Leu | Val | Leu | Arg 235 | Ala | Gly | Gln | Thr | Val |
| Pro | Val | Ser | Arg | Arg 245 | Tyr | Leu | Lys | Ser | Leu 250 | Lys | Glu | Ala | Ile | Gly 255 | Leu |

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<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 7295

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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Lys | Thr | Gly | Phe | Thr | Asn | Ala | Ala | Gly | His | Cys | Leu | Val | Met |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Arg | Thr | Val | Phe | Asn | Gly | Lys | Pro | Val | Ala | Leu | Val | Val | Met | Asp | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Gly | Lys | Tyr | Thr | His | Phe | Ala | Asp | Ala | Ser | Arg | Leu | Arg | Thr | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Glu | Thr | Gly | Lys | Val | His | Pro | Val | Pro | Ala | Ser | Ala | Leu | Ala | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Lys | His | Lys | Ala | Glu | Gln | Met | Ala | Thr | Ala | Gln | Asn | Asp | | |
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<210> 7296

<211> 797

<212> PRT

<213> Enterobacter cloacae

<400> 7296

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Cys | Lys | Val | Phe | Arg | Leu | Cys | Gly | Thr | Leu | Arg | Phe | Ser | His | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ala | Gly | Cys | Phe | Pro | Arg | Leu | Leu | Met | Arg | Glu | Asn | Asn | Asn | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Trp | Leu | Cys | Ser | Val | Gly | Val | Ala | Val | Ser | Leu | Ala | Leu | Gln | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Ala | Glu | Asp | Leu | Phe | Gly | Asn | His | Pro | Leu | Thr | Pro | Glu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Asp | Ala | Phe | Val | Thr | Asp | Leu | Leu | Lys | Lys | Met | Thr | Val | Asp | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Ile | Gly | Gln | Leu | Arg | Leu | Ile | Ser | Val | Gly | Pro | Asp | Asn | Pro | Lys |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Ala | Ile | Arg | Glu | Met | Ile | Lys | Asp | Gly | Gln | Val | Gly | Ala | Ile | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Thr | Val | Thr | Arg | Gln | Asp | Ile | Arg | Lys | Met | Gln | Asp | Gln | Val | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Leu | Ser | Arg | Leu | Lys | Ile | Pro | Leu | Phe | Phe | Ala | Tyr | Asp | Val | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Gly | Gln | Arg | Thr | Val | Phe | Pro | Ile | Ser | Leu | Gly | Leu | Ala | Ser | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Asn | Leu | Asp | Ala | Val | Lys | Thr | Val | Gly | Arg | Val | Ser | Ala | Tyr | Glu |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Ala | Ala | Asp | Asp | Gly | Leu | Asn | Met | Thr | Trp | Ala | Pro | Met | Val | Asp | Val |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ser | Arg | Asp | Pro | Arg | Trp | Gly | Arg | Ala | Ser | Glu | Gly | Phe | Gly | Glu | Asp |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Thr | Tyr | Leu | Thr | Ala | Thr | Met | Gly | Lys | Thr | Met | Val | Glu | Ala | Met | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Lys | Ser | Pro | Ala | Asp | Arg | Tyr | Ser | Val | Met | Thr | Ser | Val | Lys | His |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Ala | Ala | Tyr | Gly | Ala | Val | Glu | Gly | Gly | Lys | Glu | Tyr | Asn | Thr | Val |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Asp | Met | Ser | Pro | Gln | Arg | Leu | Phe | Asn | Asp | Tyr | Met | Pro | Pro | Tyr | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Gly | Leu | Asp | Ala | Gly | Ser | Gly | Ala | Val | Met | Val | Ala | Leu | Asn | Ser |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Asn | Gly | Thr | Pro | Ala | Thr | Ser | Asp | Ser | Trp | Leu | Leu | Lys | Asp | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Arg | Asp | Gln | Trp | Gly | Phe | Lys | Gly | Ile | Thr | Val | Ser | Asp | His | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Ile | Lys | Glu | Leu | Ile | Lys | His | Gly | Thr | Ala | Ser | Asp | Pro | Glu | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Val | Arg | Val | Ala | Leu | Lys | Ser | Gly | Ile | Asn | Met | Ser | Met | Ser | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Tyr | Tyr | Ser | Lys | Tyr | Leu | Pro | Gly | Leu | Val | Lys | Ser | Gly | Lys | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Met | Ala | Glu | Leu | Asp | Asp | Ala | Ala | Arg | His | Val | Leu | Asn | Val | Lys |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Tyr | Asp | Met | Gly | Leu | Phe | Asn | Asp | Pro | Tyr | Ser | His | Leu | Gly | Pro | Lys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asp | Ser | Asp | Pro | Ala | Asp | Thr | Asn | Ala | Glu | Ser | Arg | Leu | His | Arg | Lys |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Glu | Ala | Arg | Glu | Val | Ala | Arg | Glu | Ser | Leu | Val | Leu | Leu | Lys | Asn | Arg |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Asp | Thr | Leu | Pro | Leu | Lys | Lys | Ser | Gly | Thr | Ile | Ala | Val | Val | Gly |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Pro | Leu | Ala | Asp | Ser | Lys | Arg | Asp | Val | Met | Gly | Ser | Trp | Ser | Ala | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Gly | Val | Ala | Asp | Gln | Ser | Val | Thr | Val | Leu | Thr | Gly | Ile | Lys | Ser | Ala |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Val | Gly | Asp | Asn | Ala | Lys | Val | Val | Tyr | Ala | Lys | Gly | Ala | Asn | Val | Thr |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Asp | Asp | Lys | Asp | Ile | Val | Thr | Phe | Leu | Asn | Gln | Tyr | Glu | Glu | Ala | Val |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Lys | Val | Asp | Ala | Arg | Thr | Pro | Lys | Glu | Met | Leu | Asp | Glu | Ala | Val | Asn |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ala | Ala | Lys | Gln | Ser | Asp | Val | Val | Val | Ala | Val | Val | Gly | Glu | Ala | Gln |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Gly | Met | Ala | His | Glu | Ala | Ser | Ser | Arg | Thr | Asp | Ile | Thr | Ile | Pro | Gln |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ser | Gln | Arg | Asp | Leu | Ile | Ala | Ala | Leu | Lys | Ala | Thr | Gly | Lys | Pro | Leu |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Val | Leu | Val | Leu | Met | Asn | Gly | Arg | Pro | Leu | Ala | Leu | Val | Lys | Glu | Asp |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Gln | Gln | Ala | Asp | Ala | Ile | Leu | Glu | Thr | Trp | Phe | Ala | Gly | Thr | Glu | Gly |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Gly | Asn | Ala | Ile | Ala | Asp | Val | Leu | Phe | Gly | Asp | Tyr | Asn | Pro | Ser | Gly |
| | 610 | | | | | 615 | | | | 620 | | | | | |
| Lys | Leu | Pro | Met | Ser | Phe | Pro | Arg | Ser | Val | Gly | Gln | Ile | Pro | Val | Tyr |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Tyr | Ser | His | Leu | Asn | Thr | Gly | Arg | Pro | Tyr | Asn | Ala | Asp | Lys | Pro | Asn |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Lys | Tyr | Thr | Ser | Arg | Tyr | Phe | Asp | Glu | Ala | Asn | Gly | Pro | Leu | Tyr | Pro |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Phe | Gly | Tyr | Gly | Leu | Ser | Tyr | Thr | Thr | Phe | Lys | Val | Ser | Asp | Val | Lys |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Met | Ser | Ala | Pro | Thr | Leu | Lys | Arg | Asp | Gly | Lys | Val | Thr | Ala | Ser | Val |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Glu | Val | Thr | Asn | Ser | Gly | Lys | Arg | Glu | Gly | Ala | Thr | Val | Ile | Gln | Met |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Tyr | Val | Gln | Asp | Val | Thr | Ala | Ser | Met | Ser | Arg | Pro | Val | Lys | Gln | Leu |
| | | | | 725 | | | | | | 730 | | | | 735 | |
| Arg | Gly | Phe | Glu | Lys | Val | Asn | Leu | Lys | Pro | Gly | Glu | Thr | Arg | Thr | Val |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Ser | Phe | Pro | Ile | Asp | Val | Asn | Ala | Leu | Lys | Phe | Trp | Asn | Gln | Gln | Met |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Lys | Tyr | Asp | Ala | Glu | Pro | Gly | Lys | Phe | Asn | Val | Phe | Ile | Gly | Val | Asp |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Ser | Ala | Arg | Val | Asn | Lys | Ala | Glu | Phe | Glu | Leu | Gln | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7297

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Ala | Leu | Leu | Tyr | Leu | Met | Pro | His | Ser | Ala | Ala | Leu | Phe | Asn | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ile | Pro | Gly | Leu | Pro | Arg | Pro | Val | Tyr | Gln | Gln | Glu | Ser | Phe | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Leu | Thr | Leu | Ala | His | Phe | Trp | Leu | Val | Ala | Val | Ser | Ser | Val | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ile | Val | Leu | Gly | Thr | Gly | Ala | Gly | Ile | Ala | Val | Thr | Arg | Pro | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Gly | Arg | Glu | Phe | Arg | Pro | Leu | Val | Glu | Thr | Ile | Ala | Ala | Thr | Gly | Gln |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Thr | Phe | Pro | Pro | Val | Ala | Val | Leu | Ala | Ile | Ala | Val | Pro | Ala | Ile | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Phe | Gly | Gln | Glu | Pro | Ala | Ile | Ile | Ala | Leu | Ile | Leu | Tyr | Gly | Val | Leu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Pro | Ile | Leu | Gln | Gly | Thr | Leu | Ala | Gly | Ile | Ala | Ala | Val | Pro | Ala | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Leu | Ser | Val | Ala | Glu | Gly | Met | Gly | Met | Ser | Ala | Trp | Gln | Arg | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Lys | Val | Glu | Leu | Pro | Leu | Ala | Ala | Pro | Val | Ile | Ile | Ala | Gly | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Arg | Thr | Ser | Val | Ile | Ile | Asn | Ile | Gly | Thr | Ala | Thr | Ile | Ala | Ser | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Gly | Ala | Asn | Thr | Leu | Gly | Thr | Pro | Ile | Ile | Ile | Gly | Leu | Ser | Gly |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Phe | Asn | Thr | Ala | Tyr | Ile | Ile | Gln | Gly | Ala | Ile | Leu | Val | Ala | Leu | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Ile | Val | Val | Asp | Arg | Leu | Phe | Glu | Arg | Leu | Ala | Gly | Tyr | Leu | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | His | Arg | Arg | Glu | Gln | | | | | | | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7298

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Gln | Gln | Met | Cys | Val | Phe | Leu | Val | Ile | Ala | Trp | Leu | Met | Ser | Lys |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Thr | Arg | Leu | Phe | Ile | Pro | Leu | Met | Gln | Val | Thr | Val | Arg | Leu | Pro | His |
| | 35 | | | | | 40 | | | | | | 45 | | | |
| Lys | Phe | Leu | Cys | Tyr | Val | Val | Phe | Ser | Ile | Phe | Cys | Ile | Met | Gly | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Phe | Gly | Leu | His | Ile | Glu | Asp | Ser | Ile | Ala | Asn | Thr | Arg | Ala | Ile |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Gly | Ala | Val | Met | Gly | Gly | Leu | Leu | Gly | Gly | Pro | Val | Val | Gly | Gly | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Val | Gly | Leu | Thr | Gly | Gly | Leu | His | Arg | Tyr | Ser | Met | Gly | Gly | Met | Thr |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Ala | Leu | Ser | Cys | Met | Ile | Ser | Thr | Ile | Val | Glu | Gly | Leu | Gly | Gly | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Leu | Val | His | Ser | Tyr | Met | Ile | Lys | Arg | Gly | Arg | Pro | Asp | Lys | Val | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Pro | Phe | Thr | Ala | Gly | Ala | Ile | Thr | Phe | Val | Ala | Glu | Met | Ala | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Met Ala Ile Ile Leu Leu Ile Ala Arg Pro Phe Asp Asp Ala Leu His
 165 170 175
 Leu Val Ser Ser Ile Ala Ala Pro Met Met Val Thr Asn Thr Val Gly
 180 185 190
 Ala Ala Leu Phe Met Arg Ile Leu Leu Asp Lys Arg Ala Met Phe Glu
 195 200 205
 Lys Tyr Thr Ser Ala Phe Ser Ala Thr Ala Leu Lys Val Ala Ala Ser
 210 215 220
 Thr Glu Gly Ile Leu Arg Gln Gly Phe Asn Glu Glu Asn Ser Met Lys
 225 230 235 240
 Val Ala Gln Val Leu Tyr Lys Glu Leu Asp Ile Gly Ala Val Ala Ile
 245 250 255
 Thr Asp Arg Glu Lys Leu Leu Ala Phe Thr Gly Thr Gly Asp Asp His
 260 265 270
 His Leu Pro Gly Lys Pro Ile Ser Ser Ala Tyr Thr Leu Arg Ala Ile
 275 280 285
 Glu Thr Gly Glu Val Val Tyr Ala Asp Gly Asn Glu Val Pro Tyr Arg
 290 295 300
 Cys Ser Leu His Pro Gln Cys Lys Leu Gly Ser Thr Leu Val Ile Pro
 305 310 315 320
 Leu Arg Gly Glu Asn Gln Arg Val Met Gly Thr Ile Lys Leu Tyr Glu
 325 330 335
 Ala Lys Asn Arg Leu Phe Ser Ser Ile Asn Arg Thr Leu Gly Glu Gly
 340 345 350
 Ile Ala Gln Leu Leu Ser Ala Gln Ile Leu Ala Gly Gln Tyr Glu Arg
 355 360 365
 Gln Lys Ala Leu Leu Thr Gln Ser Glu Ile Lys Leu Leu His Ala Gln
 370 375 380
 Val Asn Pro His Phe Leu Phe Asn Ala Leu Asn Thr Leu Lys Ala Val
 385 390 395 400
 Ile Arg Arg Asp Ser Asp Gln Ala Ala Gln Leu Val Gln Phe Leu Ser
 405 410 415
 Thr Phe Phe Arg Lys Asn Leu Lys Arg Pro Ser Glu Ile Val Thr Leu
 420 425 430
 Ala Asp Glu Ile Glu His Val Asn Ala Tyr Leu Gln Ile Glu Lys Ala
 435 440 445
 Arg Phe Gln Ser Arg Leu Gln Val Ser Leu Ser Val Pro Asp Glu Leu
 450 455 460
 Ala Tyr Gln His Leu Pro Ala Phe Thr Leu Gln Pro Ile Val Glu Asn
 465 470 475 480
 Ala Ile Lys His Gly Thr Ser Gln Leu Leu Gly Thr Gly Glu Ile Met
 485 490 495
 Ile Ser Ala Ser Arg Phe Asn His His Leu Val Leu Asp Ile Glu Asp
 500 505 510
 Asn Ala Gly Leu Tyr Glu Ala Ser Ala Ser Gly Gly Leu Gly Met Ser
 515 520 525
 Leu Val Asp Lys Arg Leu Arg Ala His Phe Gly Asp Asp Cys Gly Ile
 530 535 540
 Thr Val Ala Cys Glu Pro Asp Arg Tyr Thr Arg Ile Thr Leu Arg Leu
 545 550 555 560
 Pro Leu Glu Glu Asn Ala Cys
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<210> 7299

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 7299

Gly Cys Lys Thr Asp Thr Leu Arg Ala Ile Ala Ser Ser Thr Phe Glu
 1 5 10 15

| | | | | | | | | | | | | | | | |
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| Gly | Ser | Met | Leu | Ser | Asn | Asp | Ile | Leu | Arg | Ser | Leu | Arg | Tyr | Thr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ala | Asn | Asn | Asn | Asp | Met | Val | Arg | Ile | Leu | Ala | Leu | Ser | Asp | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Ser | Thr | Ser | Ala | Gly | Phe | Asp | Thr | Trp | Met | Thr | Lys | Glu | Asp | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Gly | Phe | Val | Arg | Cys | Pro | Asp | Ile | Ile | Leu | Ser | Gly | Phe | Leu | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Leu | Ile | Tyr | Asp | Lys | Arg | Gly | Lys | Asp | Glu | Ser | Ala | Pro | Glu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Leu | Glu | Arg | Arg | Val | Asn | Asn | Asn | Thr | Val | Leu | Lys | Lys | Leu | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
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| Phe | His | Ser | Leu | Phe | Trp | Pro | Ala | Met | Leu | Glu | Gly | Ser | Asn | Phe | Arg |
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| Lys | Pro | Thr | Asn | Leu | Phe | Val | His | Gly | Tyr | Val | Thr | Val | Asn | Gly | Ala |
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| Lys | Met | Ser | Lys | Ser | Arg | Gly | Thr | Phe | Ile | Lys | Ala | Ser | Thr | Trp | Leu |
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| Ser | Ser | Arg | Ile | Asp | Asp | Ile | Asp | Leu | Asn | Leu | Glu | Asp | Phe | Val | Gln |
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| Pro | Trp | Val | Val | Ala | Lys | Gln | Glu | Gly | Arg | Asp | Ala | Asp | Leu | Gln | Ala |
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| Lys | Pro | Val | Leu | Pro | Gln | Leu | Ala | Ala | Arg | Ala | Glu | Ala | Phe | Leu | Asn |
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| Thr | Glu | Leu | Thr | Trp | Asp | Ala | Ile | Gln | Gln | Pro | Leu | Leu | Gly | His | Lys |
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| Val | Asn | Thr | Phe | Lys | Ala | Leu | Tyr | Asn | Arg | Ile | Glu | Met | Lys | Gln | Val |
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| Glu | Ala | Leu | Val | Glu | Ala | Ser | Lys | Glu | Glu | Val | Lys | Ala | Ala | Ala | Ala |
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 Phe Asp Asp Phe Ala Lys Val Asp Leu Arg Val Ala Leu Ile Glu Asn
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 Ala Glu Phe Val Glu Gly Ser Asp Lys Leu Leu Arg Leu Thr Leu Asp
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 Leu Gly Gly Glu Lys Arg Asn Val Phe Ser Gly Ile Arg Ser Ala Tyr
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 Pro Asp Pro Gln Val Leu Ile Gly Arg Gln Thr Val Met Val Ala Asn
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 Leu Ala Pro Arg Lys Met Arg Phe Gly Ile Ser Glu Gly Met Val Met
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<212> PRT

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 Gly Gly His Arg Leu Phe Asn Asp Ala Asp Ile Asp Arg Ile Arg Glu
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 Ile Lys Ser Trp Ile Asp Asn Gly Val Gln Val Gly Lys Val Lys Ser
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 Leu Leu Ser Gln Tyr Asp Pro Asp Thr Gln His Leu Trp Arg Glu Gln
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 Arg Gly Trp Ile Lys Glu Gln Gly Arg Asp Tyr Pro Ala Gln Thr Leu
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 Thr Thr Leu Gln Ala Leu Leu Ser Met Leu Asp Gly Val Leu Ile Asn
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 Tyr Ile Ser Val Cys Leu Ala Ser Ala Arg Asn Lys Asn Ser Lys Asp
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 Glu Ala Trp Ile Ala Thr Gln Gln Gly Trp Arg Val Asp Val Leu Ala
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 His Ser Leu Ala Gln Leu Arg Pro Glu Leu Phe Glu Gly Gln Thr Leu
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| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Thr | Ala | Gln | Arg | Leu | Ile | Ala | Leu | Cys | Phe | Thr | Ala | Arg | Asn | Leu |
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| Pro | His | His | Lys | Glu | Trp | Lys | Met | Ser | Ser | Val | Arg | Thr | Asp | Asp | Asn |
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| Leu | Thr | Asp | Pro | Ala | Lys | Thr | Ala | Arg | Tyr | Arg | Lys | Gly | Phe | Arg | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Gln | Gly | Glu | Ala | Leu | Ala | Val | Val | Phe | Pro | Gly | Thr | Leu | Leu | Glu |
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| | 130 | | | | | 135 | | | | | 140 | | | | |
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| Thr | Thr | Leu | Tyr | Ser | Leu | Glu | Lys | Ala | Leu | Lys | Pro | Leu | Gly | Arg | Glu |
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| Tyr | Thr | Glu | Met | Ser | Leu | Phe | Ala | Arg | Ile | Asp | Glu | Asn | Gly | Lys | Leu |
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| Thr | Leu | Val | Asn | His | Leu | Gly | Ile | Asp | Leu | Gly | Val | Thr | Pro | Glu | Gln |
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| Ile | Leu | Ser | Lys | Leu | Asp | Asp | Asp | Arg | Val | Lys | Asp | Glu | Asp | Val | Gln |
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| His | Asp | Gly | Arg | His | Ala | His | Asp | His | Asp | Tyr | Ile | Thr | Arg | Val | Arg |
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| Arg | Leu | Asp | Thr | Phe | Pro | Ala | Glu | Lys | Lys | Gln | Gln | Val | Phe | Tyr | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Thr | Asn | Gln | Pro | Glu | Val | Leu | Thr | Glu | Ile | Arg | Arg | His | Ile | Leu |
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| Ala | Glu | Phe | Thr | His | Leu | Pro | Val | Ala | Gly | Glu | Tyr | Met | His | Arg | Asp |
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| Ile | Tyr | Asp | Ile | Ala | Glu | Arg | Tyr | Gly | Lys | Asp | Thr | Phe | Leu | Met | Ile |
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| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
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| | | | | 405 | | | | | 410 | | | | | 415 | |
| Thr | Asp | Arg | Phe | Met | Gln | Lys | Leu | Gly | Asn | Val | Phe | Pro | Ala | His | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
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| Glu | Leu | Met | Tyr | Gly | Val | Tyr | Ala | Leu | Lys | His | Gly | Pro | Glu | Ala | Trp |
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| Ala | Ser | Phe | Val | Gly | Phe | Leu | Gln | Asn | Pro | Ile | Ile | Val | Val | Leu | Asn |

| | | | | | | | | | | | | | | | |
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| Leu | Ile | Val | Leu | Ala | Ala | Ala | Leu | Leu | His | Thr | Lys | Thr | Trp | Phe | Glu |
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| Leu | Ala | Pro | Lys | Ala | Ala | Asn | Ile | Ile | Val | Lys | Gly | Glu | Lys | Met | Gly |
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| Gly | Arg | Leu | Leu | Met | Met | Lys | Lys | Ser | Leu | Cys | Cys | Ala | Leu | Leu | Leu |
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| Gly | Leu | Ser | Cys | Ser | Ala | Leu | Ala | Ala | Pro | Val | Ser | Glu | Lys | Gln | Leu |
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| Val | Pro | Gly | Met | Ala | Val | Ala | Val | Ile | Tyr | Gln | Gly | Lys | Ser | His | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Thr | Phe | Gly | Lys | Ala | Asp | Ile | Ala | Ala | Asn | Lys | Pro | Val | Thr | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Thr | Leu | Phe | Glu | Leu | Gly | Ser | Ile | Ser | Lys | Thr | Phe | Thr | Gly | Val |
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| Arg | Met | Leu | Asp | Leu | Ala | Thr | Tyr | Thr | Ala | Gly | Gly | Leu | Pro | Leu | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Pro | Asp | Glu | Val | Thr | Asp | Asn | Ala | Ser | Leu | Leu | Arg | Phe | Tyr | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Trp | Gln | Pro | Gln | Trp | Lys | Pro | Gly | Thr | Thr | Arg | Leu | Tyr | Ala | Asn |
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| Pro | Tyr | Glu | Gln | Ala | Met | Thr | Thr | Arg | Val | Leu | Lys | Pro | Leu | Lys | Leu |
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| Asp | His | Thr | Trp | Ile | Asn | Val | Pro | Lys | Ala | Glu | Glu | Ala | His | Tyr | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Trp | Gly | Tyr | Arg | Asp | Gly | Lys | Ala | Val | Arg | Val | Ser | Pro | Gly | Met | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Ala | Gln | Ala | Tyr | Gly | Val | Lys | Thr | Asn | Val | Gln | Asp | Met | Ala | Asn |
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| Trp | Val | Met | Ala | Asn | Met | Ala | Pro | Glu | Lys | Val | Ala | Asp | Ala | Ser | Leu |
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| Met | Tyr | Gln | Gly | Leu | Gly | Trp | Glu | Met | Leu | Asn | Trp | Pro | Val | Glu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Asn | Thr | Val | Val | Glu | Gly | Ser | Asp | Ser | Lys | Val | Ala | Leu | Ala | Pro | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Ala | Ala | Glu | Val | Asn | Pro | Pro | Ala | Pro | Pro | Val | Lys | Ala | Ser | Trp |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | 355 | | 360 | | 365 | | | | | | | | | | | |
| Val | His | Lys | Thr | Gly | Ser | Thr | Gly | Gly | Phe | Gly | Ser | Tyr | Val | Ala | Phe | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Ile | Pro | Glu | Lys | Gln | Ile | Gly | Ile | Val | Met | Leu | Ala | Asn | Lys | Ser | Tyr | |
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| Pro | Asn | Pro | Ala | Arg | Val | Glu | Ala | Ala | Tyr | His | Ile | Leu | Glu | Ala | Leu | |
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| | | 20 | | | | | | 25 | | | | | 30 | | | |
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| Trp | Gly | Ala | Ser | Lys | Arg | Ala | Gly | Trp | Leu | Thr | Lys | Leu | Val | Ile | Asp | |
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| Leu | Phe | Val | Lys | Tyr | Tyr | Lys | Val | Asp | Met | Lys | Glu | Ala | Gln | Lys | Pro | |
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| Asp | Thr | Ala | Ser | Tyr | Arg | Thr | Phe | Asn | Glu | Phe | Phe | Val | Arg | Pro | Leu | |
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| Arg | Asp | Glu | Val | Arg | Pro | Leu | Asn | Thr | Asp | Pro | Asn | Val | Leu | Val | Met | |
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| Pro | Ala | Asp | Gly | Val | Ile | Ser | Gln | Leu | Gly | Lys | Ile | Glu | Asn | Asp | Lys | |
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| Ile | Leu | Gln | Ala | Lys | Gly | His | Asn | Tyr | Ser | Leu | Glu | Ala | Leu | Leu | Ala | |
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| Gly | Asn | Tyr | Ile | Met | Ala | Asp | Leu | Phe | Arg | Asn | Gly | Thr | Phe | Ala | Thr | |
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| Thr | Tyr | Leu | Ser | Pro | Arg | Asp | Tyr | His | Arg | Val | His | Met | Pro | Cys | Asn | |
| | | | 165 | | | | | | 170 | | | | | 175 | | |
| Gly | Ile | Leu | Arg | Glu | Met | Ile | Tyr | Val | Pro | Gly | Asp | Leu | Phe | Ser | Val | |
| | | 180 | | | | | | 185 | | | | | 190 | | | |
| Asn | His | Leu | Thr | Ala | Gln | Asn | Val | Pro | Asn | Leu | Phe | Ala | Arg | Asn | Glu | |
| | 195 | | | | | 200 | | | | | 205 | | | | | |
| Arg | Val | Ile | Cys | Leu | Phe | Asp | Thr | Glu | Phe | Gly | Pro | Met | Ala | Gln | Ile | |
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| Leu | Val | Gly | Ala | Thr | Ile | Val | Gly | Ser | Ile | Glu | Thr | Val | Trp | Ala | Gly | |
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| Thr | Ile | Thr | Pro | Pro | Arg | Glu | Gly | Val | Ile | Lys | Arg | Trp | Thr | Trp | Pro | |
| | | | 245 | | | | | | 250 | | | | | 255 | | |
| Ala | Gly | Glu | Glu | Gly | Ser | Val | Ala | Leu | Leu | Lys | Gly | Gln | Glu | Met | | |
| | | 260 | | | | | 265 | | | | | 270 | | | | |
| Gly | Arg | Phe | Lys | Leu | Gly | Ser | Thr | Val | Ile | Asn | Leu | Phe | Ala | Pro | Gly | |
| | 275 | | | | | | 280 | | | | | 285 | | | | |
| Lys | Val | Asn | Leu | Val | Asp | Glu | Leu | Glu | Ser | Leu | Ser | Val | Thr | Lys | Leu | |
| | 290 | | | | 295 | | | | | 300 | | | | | | |
| Gly | Gln | Pro | Leu | Ala | Val | Ser | Thr | Glu | Val | Phe | Ala | Thr | Pro | Asp | Val | |
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| | | | | 325 | | | | | 330 | | | | | 335 | | |
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| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Val | Val | Gln | Thr | Phe | Gln | Ala | Asp | Leu | Ala | Val | Ile | Gly | Ala | Gly | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ala | Gly | Leu | Arg | Ala | Ala | Ile | Ala | Ala | Ala | Gln | Ala | Asn | Pro | Asn | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Ile | Ala | Leu | Ile | Ser | Lys | Val | Tyr | Pro | Met | Arg | Ser | His | Thr | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Glu | Gly | Gly | Ser | Ala | Ala | Val | Ala | Gln | Asp | His | Asp | Ser | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Tyr | His | Phe | His | Asp | Thr | Val | Ala | Gly | Gly | Asp | Trp | Leu | Cys | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Asp | Val | Val | Asp | Tyr | Phe | Val | His | His | Cys | Pro | Thr | Glu | Met | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Leu | Glu | Gln | Trp | Gly | Cys | Pro | Trp | Ser | Arg | Arg | Pro | Asp | Gly | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Asn | Val | Arg | Arg | Phe | Gly | Gly | Met | Lys | Ile | Glu | Arg | Thr | Trp | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Ala | Asp | Lys | Thr | Gly | Phe | His | Met | Leu | His | Thr | Leu | Phe | Gln | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Leu | Gln | Phe | Pro | Gln | Ile | Gln | Arg | Phe | Asp | Glu | His | Phe | Val | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Ile | Leu | Val | Asp | Asp | Gly | His | Ala | Arg | Gly | Leu | Val | Ala | Met | Asn |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Met | Met | Glu | Gly | Thr | Leu | Val | Gln | Ile | Arg | Ala | Asn | Ala | Val | Val | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Thr | Gly | Gly | Ala | Gly | Arg | Val | Tyr | Arg | Tyr | Asn | Thr | Asn | Gly | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Val | Thr | Gly | Asp | Gly | Met | Gly | Met | Ala | Leu | Ser | His | Gly | Val | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Arg | Asp | Met | Glu | Phe | Val | Gln | Tyr | His | Pro | Thr | Gly | Leu | Pro | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Gly | Ile | Leu | Met | Thr | Glu | Gly | Cys | Arg | Gly | Glu | Gly | Gly | Ile | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Asn | Lys | Asn | Gly | Tyr | Arg | Tyr | Leu | Gln | Asp | Tyr | Gly | Met | Gly | Pro |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Thr | Pro | Leu | Gly | Glu | Pro | Lys | Asn | Lys | Tyr | Met | Glu | Leu | Gly | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Arg | Asp | Lys | Val | Ser | Gln | Ala | Phe | Trp | His | Glu | Trp | Arg | Lys | Gly | Asn |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Ile | Ser | Thr | Pro | Arg | Gly | Asp | Val | Val | His | Leu | Asp | Leu | Arg | His |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Gly | Glu | Lys | Lys | Leu | Leu | Glu | Arg | Leu | Pro | Phe | Ile | Cys | Glu | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Lys | Ala | Tyr | Val | Gly | Val | Asp | Pro | Val | Lys | Glu | Pro | Ile | Pro | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Arg | Pro | Thr | Ala | His | Tyr | Thr | Met | Gly | Gly | Ile | Glu | Thr | Asp | Gln | Gln |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Cys | Glu | Thr | Arg | Ile | Lys | Gly | Leu | Phe | Ala | Val | Gly | Glu | Cys | Ser | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Gly | Leu | His | Gly | Ala | Asn | Arg | Leu | Gly | Ser | Asn | Ser | Leu | Ala | Glu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Leu | Val | Val | Phe | Gly | Arg | Met | Ala | Gly | Glu | Arg | Ala | Val | Glu | Arg | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ala | Thr | Ala | Gly | Glu | Ala | Asn | Ser | Ala | Ala | Leu | Asp | Ala | Gln | Val | Val |

| | | |
|---------------------------------|-------------------------------------|-----|
| 435 | 440 | 445 |
| Asp Val Glu Lys Arg Leu Lys | Asp Leu Val Asn Gln Glu Gly Asn Glu | |
| 450 | 455 | 460 |
| Asn Trp Ser Lys Ile Arg Asp | Glu Met Gly Leu Ser Met Glu Glu Gly | |
| 465 | 470 | 475 |
| Cys Gly Ile Tyr Arg Thr Pro | Glu Leu Met Gln Lys Thr Val Asp Lys | |
| 485 | 490 | 495 |
| Leu Ala Glu Leu Gln Glu Arg Phe | Lys Arg Val Arg Ile Thr Asp Thr | |
| 500 | 505 | 510 |
| Ser Ser Val Phe Asn Thr Asp | Leu Leu Tyr Thr Ile Glu Leu Gly His | |
| 515 | 520 | 525 |
| Gly Leu Asn Val Ala Glu Cys | Met Ala His Ser Ala Leu Ala Arg Lys | |
| 530 | 535 | 540 |
| Glu Ser Arg Gly Ala His Gln | Arg Leu Asp Glu Gly Cys Thr Glu Arg | |
| 545 | 550 | 555 |
| Asp Asp Val Asn Phe Leu Lys | His Thr Leu Ala Trp Arg Asp Ala Asp | |
| 565 | 570 | 575 |
| Gly Thr Thr Arg Leu Asp Tyr | Ser Asp Val Lys Ile Thr Thr Leu Pro | |
| 580 | 585 | 590 |
| Pro Ala Lys Arg Val Tyr Gly | Ala Glu Ala Glu Ala Asp Lys Lys | |
| 595 | 600 | 605 |
| Glu Lys Ala Asn Gly | | |
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<210> 7309

<211> 139

<212> PRT

<213> Enterobacter cloacae

<400> 7309

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| 20 25 30 | |
| Phe Trp Gly Leu Phe Gly Ala Gly Gly Met Trp Ser Ala Ile Ile Ala | |
| 35 40 45 | |
| Pro Val Ile Ile Leu Leu Val Gly Ile Met Leu Pro Leu Gly Leu Phe | |
| 50 55 60 | |
| Pro Gly Asp Ala Leu Ser Tyr Glu Arg Val Leu Ala Phe Ala Ser Ser | |
| 65 70 75 80 | |
| Phe Ile Gly Arg Val Phe Ile Phe Leu Met Ile Val Leu Pro Leu Trp | |
| 85 90 95 | |
| Cys Gly Leu His Arg Ile His His Ala Met His Asp Leu Lys Ile His | |
| 100 105 110 | |
| Val Pro Ser Gly Lys Trp Val Phe Tyr Gly Leu Ala Thr Ile Leu Thr | |
| 115 120 125 | |
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| 130 135 | |

<210> 7310

<211> 1161

<212> PRT

<213> Enterobacter cloacae

<400> 7310

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| 20 25 30 | |
| Thr Thr Pro Ala Arg Trp Leu Thr Thr Lys Lys Thr Lys Ala Asn Asn | |
| 35 40 45 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Ile | Ala | Asp | Val | Arg | Pro | Ile | Ile | Val | Leu | Leu | Met | Ala | Trp |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Cys | Leu | Ser | Met | Gly | Ala | Tyr | Ala | Ala | Thr | Ala | Pro | Asp | Ala | Lys | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Thr | Gln | Glu | Leu | Glu | Gln | Ala | Lys | Ala | Ala | Lys | Pro | Ala | Gln | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Thr | Val | Glu | Ser | Leu | Gln | Ser | Ala | Leu | Asn | Ala | Leu | Glu | Glu | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Gly | Ser | Leu | Glu | Arg | Ala | Gln | Gln | Tyr | Gln | Gln | Val | Ile | Asp | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Pro | Lys | Leu | Ser | Gln | Thr | Leu | Arg | Ser | Gln | Leu | Asn | Asn | Leu | Arg |
| | 130 | | | | | | 135 | | | | | 140 | | | |
| Asp | Glu | Pro | Arg | Gln | Val | Pro | Ala | Gly | Met | Thr | Ser | Glu | Ala | Leu | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Glu | Ile | Leu | Gln | Val | Ser | Ser | Gln | Leu | Leu | Glu | Lys | Ser | Arg | Leu |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Ala | Gln | Gln | Glu | Gln | Glu | Arg | Ala | Arg | Glu | Ile | Ala | Asp | Ser | Leu | Ser |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Gln | Leu | Pro | Gln | Gln | Gln | Thr | Asp | Ala | Arg | Arg | Gln | Leu | Asn | Glu | Val |
| | | 195 | | | | | 200 | | | | | | 205 | | |
| Glu | Arg | Arg | Ile | Gly | Thr | Gln | Thr | Gly | Ser | Thr | Pro | Gln | Asn | Gln | Ala |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Gln | Asn | Leu | Gly | Leu | Gln | Ala | Glu | Ser | Ala | Arg | Leu | Lys | Ala | Leu | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Glu | Leu | Glu | Leu | Ala | Gln | Leu | Ser | Ala | Asn | Asn | Arg | Gln | Glu | Leu |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Ser | Arg | Met | Arg | Ser | Glu | Leu | Ala | Gln | Lys | Gln | Ser | Gln | Gln | Leu | Asp |
| | | 260 | | | | | | 265 | | | | | | 270 | |
| Ala | Tyr | Leu | Gln | Ala | Leu | Arg | Asn | Gln | Leu | Asn | Ser | Gln | Arg | Gln | Arg |
| | | 275 | | | | | 280 | | | | | | 285 | | |
| Glu | Ala | Glu | Arg | Ala | Leu | Glu | Ser | Thr | Glu | Leu | Leu | Ala | Glu | Asn | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Asn | Leu | Pro | Asp | Ser | Ile | Val | Ala | Gln | Phe | Lys | Val | Asn | Arg | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Ser | Ala | Ala | Leu | Asn | Gln | Gln | Ala | Gln | Arg | Met | Asp | Leu | Val | Ala |
| | | | | 325 | | | | | 330 | | | | | | 335 |
| Ser | Gln | Gln | Arg | Gln | Ala | Thr | Asn | Gln | Thr | Leu | Gln | Val | Arg | Gln | Ala |
| | | | 340 | | | | | 345 | | | | | | 350 | |
| Leu | Asn | Thr | Leu | Arg | Glu | Gln | Ser | Gln | Trp | Leu | Gly | Ser | Ser | Asn | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Gly | Glu | Ala | Leu | Arg | Ala | Gln | Val | Ala | Arg | Leu | Pro | Glu | Met | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Lys | Pro | Gln | Gln | Leu | Asp | Thr | Glu | Met | Ala | Gln | Leu | Arg | Val | Gln | Arg |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | His | Tyr | Glu | Asp | Leu | Leu | Asn | Lys | Gln | Pro | Gln | Ile | Arg | Gln | Ile |
| | | | | 405 | | | | | 410 | | | | | | 415 |
| Arg | Gln | Ala | Asp | Gly | Gln | Pro | Leu | Thr | Gly | Glu | Gln | Ser | Arg | Ile | Leu |
| | | | 420 | | | | | 425 | | | | | | 430 | |
| Glu | Ala | Gln | Leu | Arg | Thr | Gln | Arg | Glu | Leu | Leu | Asn | Ser | Leu | Leu | Gln |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gly | Gly | Asp | Thr | Leu | Ile | Leu | Glu | Leu | Thr | Lys | Leu | Lys | Val | Ser | Asn |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ser | Gln | Leu | Glu | Asp | Ala | Leu | Lys | Glu | Val | Asn | Glu | Ala | Thr | His | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Tyr | Leu | Phe | Trp | Thr | Ser | Asp | Val | Arg | Pro | Met | Thr | Phe | Ala | Trp | Pro |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ile | Glu | Ile | Val | Gln | Asp | Leu | Arg | Arg | Leu | Ile | Ser | Leu | Asp | Thr | Phe |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ser | Gln | Leu | Gly | Leu | Ala | Ser | Val | Met | Met | Ile | Thr | Ser | Lys | Glu | Thr |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ile | Phe | Pro | Leu | Leu | Gly | Ala | Leu | Ile | Leu | Val | Gly | Phe | Ser | Ile | Tyr |

| | | |
|-------------------------|-------------------------|---------------------|
| 530 | 535 | 540 |
| Ser Arg Arg His Phe Thr | Arg Phe Leu Glu Arg | Ser Ser Ala Arg Val |
| 545 | 550 | 555 |
| Gly Lys Val Thr Gln | Asp His Phe Trp Leu Thr | Leu Arg Thr Val Phe |
| | 565 | 570 |
| Trp Ser Ile Leu Val Ala | Ser Pro Leu Pro Val | Leu Trp Met Thr Leu |
| | 580 | 585 |
| Gly Tyr Gly Leu Arg Glu | Ala Trp Pro Tyr Pro | Leu Ala Val Ala Ile |
| | 595 | 600 |
| Gly Asp Gly Val Thr Ala | Thr Val Pro Leu Leu | Trp Val Val Met Ile |
| | 610 | 615 |
| Cys Ala Thr Phe Ala Arg | Pro Asn Gly Leu Phe | Ile Ala His Phe Gly |
| 625 | 630 | 635 |
| Trp Pro Arg Asn Arg Val | Ala Arg Ala Met Arg | Tyr Tyr Leu Met Ser |
| | 645 | 650 |
| Ile Gly Leu Ile Val Pro | Leu Ile Met Ala Leu | Ile Met Phe Asp Asn |
| | 660 | 665 |
| Leu Asn Asp Arg Glu Phe | Ser Gly Ser Leu Gly | Arg Leu Cys Phe Met |
| | 675 | 680 |
| Leu Ile Cys Gly Ala Leu | Ala Val Val Thr Leu | Ser Leu Lys Arg Ala |
| | 690 | 695 |
| Gly Ile Pro Leu Tyr Leu | Asp Lys Thr Gly Ser | Gly Asp Asn Met Leu |
| 705 | 710 | 715 |
| Asn Arg Leu Leu Trp Asn | Leu Leu Leu Ser Ala | Pro Leu Ala Ala Met |
| | 725 | 730 |
| Leu Ala Ala Ala Val Gly | Tyr Leu Ala Thr Ser | Gln Ala Leu Leu Ala |
| | 740 | 745 |
| Arg Leu Glu Thr Ser Val | Ala Ile Trp Phe Leu | Leu Leu Val Val Tyr |
| | 755 | 760 |
| His Val Ile Arg Arg Gly | Met Leu Ile Gln Arg | Arg Arg Leu Ala Phe |
| | 770 | 775 |
| Asp Arg Ala Lys His Arg | Arg Ala Glu Ile Leu | Ala Gln Arg Ala Arg |
| 785 | 790 | 795 |
| Gly Glu Glu Glu Pro Asn | His Val Asn Ser Thr | Glu Gly Thr Thr Asp |
| | 805 | 810 |
| Ala Asp Asp Val Glu Leu | Asp Leu Asp Ala Ile | Ser Thr Gln Ser Leu |
| | 820 | 825 |
| Arg Leu Val Arg Ser Ile | Leu Met Leu Val Ala | Leu Leu Ser Val Ile |
| | 835 | 840 |
| Tyr Leu Trp Ser Glu Ile | His Ser Ala Phe Gly | Phe Leu Glu Asn Ile |
| | 850 | 855 |
| Ser Leu Trp Asp Val Thr | Ser Thr Val Gln Gly | Val Glu Ser Leu Glu |
| 865 | 870 | 875 |
| Pro Ile Thr Leu Gly Ala | Val Leu Ile Ala Ile | Leu Val Leu Ile Ile |
| | 885 | 890 |
| Thr Thr Gln Leu Ile Arg | Asn Phe Pro Ala Leu | Leu Leu Glu Leu Ala |
| | 900 | 905 |
| Leu Gln His Leu Asp Leu | Thr Pro Gly Thr Gly | Tyr Ala Ile Thr Thr |
| | 915 | 920 |
| Ile Thr Lys Tyr Leu Ile | Met Leu Phe Gly Gly | Leu Val Gly Phe Ser |
| | 930 | 935 |
| Met Ile Gly Ile Glu Trp | Ser Lys Leu Gln Trp | Leu Val Ala Ala Leu |
| 945 | 950 | 955 |
| Thr Val Gly Leu Gly Phe | Gly Leu Gln Glu Ile | Phe Ala Asn Phe Val |
| | 965 | 970 |
| Ser Gly Leu Ile Leu Phe | Glu Lys Pro Ile Arg | Ile Gly Asp Thr |
| | 980 | 985 |
| Val Thr Ile Arg Asp Leu | Thr Gly Ser Val Thr | Arg Ile Asn Thr Arg |
| | 995 | 1000 |
| Ala Thr Thr Ile Ser Asp | Trp Asp Arg Lys Glu | Ile Ile Val Pro Asn |
| 1010 | 1015 | 1020 |

Lys Ala Phe Ile Thr Glu Gln Phe Ile Asn Trp Ser Leu Ser Asp Ser
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 Val Thr Arg Val Val Leu Thr Val Pro Ala Pro Ser Asp Ala Asn Ser
 1045 1050 1055
 Glu Glu Val Thr Gln Ile Leu Tyr Thr Ala Ala Glu Arg Cys Ser Leu
 1060 1065 1070
 Val Ile Asp Asn Pro Pro Pro Glu Val Phe Leu Val Asp Leu Gln Gln
 1075 1080 1085
 Gly Ile Gln Ile Phe Glu Leu Arg Ile Tyr Ala Ala Glu Met Gly His
 1090 1095 1100
 Arg Met Pro Leu Arg His Glu Ile His Gln Leu Ile Leu Ala Gly Phe
 1105 1110 1115 1120
 Arg Glu His Gly Ile Asp Met Pro Phe Pro Pro Phe Gln Met Arg Leu
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 Arg Thr Arg Pro Ala Gly Ser Leu
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<211> 270

<212> PRT

<213> Enterobacter cloacae

<400> 7311

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 Lys Val Glu Val Val Arg Tyr Asn Pro Glu Val Asp Ala Ala Pro His
 35 40 45
 Ser Ala Phe Tyr Glu Val Pro Tyr Asp Glu Gln Thr Ser Leu Leu Asp
 50 55 60
 Ala Leu Gly Tyr Ile Lys Asp Asn Leu Ala Pro Asp Leu Ser Tyr Arg
 65 70 75 80
 Trp Ser Cys Arg Met Ala Ile Cys Gly Ser Cys Gly Met Met Val Asn
 85 90 95
 Lys Val Pro Lys Leu Ala Cys Lys Thr Phe Leu Arg Asp Tyr Thr Lys
 100 105 110
 Gly Ile Lys Val Glu Ala Leu Gly Asn Phe Pro Ile Glu Arg Asp Leu
 115 120 125
 Val Val Asp Met Thr His Phe Ile Glu Ser Leu Glu Ala Ile Lys Pro
 130 135 140
 Tyr Ile Ile Gly Asn Pro Arg Thr Pro Asp Gln Gly Pro Asn Thr Gln
 145 150 155 160
 Thr Pro Ala Gln Met Ala Lys Tyr His Gln Phe Ser Gly Cys Ile Asn
 165 170 175
 Cys Gly Leu Cys Tyr Ala Ala Cys Pro Gln Phe Gly Leu Asn Pro Glu
 180 185 190
 Phe Ile Gly Pro Ala Ala Ile Thr Leu Ala His Arg Tyr Asn Glu Asp
 195 200 205
 Ser Arg Asp His Gly Lys Lys Glu Arg Met Ala Gln Leu Asn Ser Gln
 210 215 220
 Asn Gly Val Trp Thr Cys Thr Phe Val Gly Tyr Cys Ser Glu Val Cys
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 Ser Ser Lys Asp Phe Leu Ile Ala Thr Leu Lys Pro Arg
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<211> 301
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<400> 7312

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Asn | Ser | Leu | Arg | Ala | Phe | Glu | Ala | Ala | Ala | Arg | His | Leu | Ser | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | His | Ala | Ala | Ile | Glu | Leu | Asn | Val | Thr | His | Ser | Ala | Ile | Ser | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Val | Lys | Thr | Leu | Glu | Gln | His | Leu | Asn | Cys | Gln | Leu | Phe | Val | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ser | Arg | Gly | Leu | Met | Leu | Thr | Thr | Glu | Gly | Glu | Asn | Leu | Leu | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Leu | Asn | Asp | Ser | Phe | Asp | Arg | Ile | Ala | Gly | Met | Leu | Asp | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Asn | His | Arg | Ala | Gln | Glu | Lys | Leu | Lys | Ile | Gly | Val | Val | Gly | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ala | Thr | Gly | Val | Leu | Phe | Ser | Gln | Leu | Glu | Asp | Phe | Arg | Arg | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Pro | His | Ile | Asp | Leu | Gln | Leu | Ser | Thr | His | Asn | Asn | Arg | Val | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Ala | Ala | Glu | Gly | Leu | Asp | Tyr | Thr | Ile | Arg | Tyr | Gly | Gly | Gly | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Trp | His | Gly | Thr | Glu | Ala | Glu | Phe | Leu | Cys | His | Ala | Pro | Leu | Ala | Pro |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Leu | Cys | Thr | Pro | Asp | Ile | Ala | Ala | Ser | Leu | His | Ser | Pro | Ala | Asp | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Arg | Phe | Thr | Leu | Leu | Arg | Ser | Tyr | Arg | Arg | Asp | Glu | Trp | Thr | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Trp | Met | Gln | Ala | Ala | Gly | Glu | His | Pro | Pro | Ser | Pro | Thr | His | Arg | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Met | Val | Phe | Asp | Ser | Ser | Val | Thr | Met | Leu | Glu | Ala | Ala | Gln | Ala | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Gly | Ile | Ala | Ile | Ala | Pro | Val | Asp | Met | Phe | Thr | His | Leu | Leu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Glu | Arg | Ile | Val | Gln | Pro | Phe | Ala | Thr | Gln | Ile | Glu | Leu | Gly | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Tyr | Trp | Leu | Thr | Arg | Leu | Gln | Ser | Arg | Ala | Glu | Thr | Pro | Ala | Met | Arg |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Glu | Phe | Ser | Arg | Trp | Leu | Val | Glu | Lys | Met | Lys | Lys | | | | |
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 <211> 327
 <212> PRT
 <213> Enterobacter cloacae

<400> 7313

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| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Leu | Leu | Lys | Arg | Ala | Ala | Ile | Met | Ala | Glu | Ile | Arg | Arg | Phe | Phe | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Arg | Gly | Val | Leu | Glu | Val | Glu | Thr | Pro | Cys | Met | Ser | Gln | Ala | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Thr | Asp | Ile | His | Leu | Val | Pro | Phe | Glu | Thr | Arg | Phe | Val | Gly | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | His | Ser | Gln | Gly | Met | Asn | Leu | Tyr | Leu | Met | Thr | Ser | Pro | Glu | Tyr |
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| His | Met | Lys | Arg | Leu | Leu | Ala | Ala | Gly | Cys | Gly | Pro | Val | Tyr | Gln | Leu |

| | | | | | | | | | | | | | | | | | |
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| Cys | Arg | Ser | Phe | Arg | Asn | Glu | Glu | Met | Gly | Arg | His | His | Asn | Pro | Glu | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Phe | Thr | Met | Leu | Glu | Trp | Tyr | Arg | Pro | His | Tyr | Asp | Met | Tyr | Arg | Leu | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Met | Asn | Glu | Val | Asp | Asp | Leu | Leu | Gln | Gln | Val | Leu | Asp | Cys | Ala | Glu | | |
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| Ala | Glu | Thr | Leu | Ser | Tyr | Gln | Gln | Ala | Phe | Gln | Arg | His | Leu | Glu | Ile | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Asp | Pro | Leu | Ser | Ala | Asp | Lys | Thr | Gln | Leu | Arg | Glu | Val | Ala | Ala | Lys | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Leu | Asp | Leu | Ser | Asn | Val | Ala | Asp | Asn | Glu | Glu | Asp | Arg | Asp | Thr | Leu | | |
| | | 180 | | | | | | 185 | | | | | 190 | | | | |
| Leu | Gln | Leu | Phe | Thr | Phe | Gly | Val | Glu | Pro | Gln | Ile | Gly | Lys | Asp | | | |
| | | 195 | | | | 200 | | | | | 205 | | | | | | |
| Arg | Pro | Thr | Phe | Val | Tyr | His | Phe | Pro | Ala | Ser | Gln | Ala | Ser | Leu | Ala | | |
| | 210 | | | | 215 | | | | | | 220 | | | | | | |
| Gln | Ile | Ser | Thr | Glu | Asp | His | Arg | Val | Ala | Glu | Arg | Phe | Glu | Val | Tyr | | |
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| Phe | Lys | Gly | Ile | Glu | Leu | Ala | Asn | Gly | Phe | His | Glu | Leu | Thr | Asp | Ala | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Arg | Glu | Gln | Gln | Arg | Phe | Glu | Gln | Asp | Asn | Arg | Lys | Arg | Asn | Ala | | | |
| | | 260 | | | | | 265 | | | | | 270 | | | | | |
| Arg | Gly | Leu | Pro | Gln | Gln | Pro | Ile | Asp | Thr | Asn | Leu | Leu | Glu | Ala | Leu | | |
| | | 275 | | | | 280 | | | | | 285 | | | | | | |
| Lys | Ala | Gly | Leu | Pro | Asp | Cys | Ser | Gly | Val | Ala | Leu | Gly | Val | Asp | Arg | | |
| | 290 | | | | 295 | | | | | 300 | | | | | | | |
| Leu | Val | Met | Leu | Ala | Leu | Gly | Ala | Glu | Gln | Leu | Gly | Asp | Val | Ile | Ala | | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | | |
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| Val | Ser | Asp | Gly | Tyr | Met | Ser | His | Ser | Leu | Lys | Lys | Met | Thr | Leu | Thr | | |
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| Gly | Leu | Ile | Leu | Met | Ile | Phe | Thr | Ser | Val | Phe | Gly | Phe | Ala | Asn | Ser | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Pro | Ser | Ala | Phe | Tyr | Leu | Met | Gly | Tyr | Ser | Ala | Thr | Pro | Phe | Tyr | Ile | | |
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| Val | Ser | Ala | Leu | Phe | Phe | Phe | Ile | Pro | Phe | Ala | Leu | Met | Met | Ala | Glu | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Met | Gly | Ser | Ala | Tyr | Arg | Lys | Glu | Glu | Gly | Gly | Ile | Tyr | Ser | Trp | Met | | |
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| Asn | Asn | Ser | Val | Gly | Pro | Arg | Tyr | Ala | Phe | Ile | Gly | Thr | Phe | Met | Trp | | |
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| Phe | Ser | Ser | Tyr | Val | Val | Trp | Met | Val | Ser | Thr | Ala | Ala | Lys | Val | Trp | | |
| | | 115 | | | | 120 | | | | | | 125 | | | | | |
| Val | Pro | Phe | Ser | Thr | Phe | Leu | Phe | Gly | Ala | Asp | Lys | Thr | Gln | Val | Trp | | |
| | 130 | | | | 135 | | | | | | 140 | | | | | | |
| Ser | Leu | Ala | Gly | Leu | Ser | Thr | Gln | Val | Val | Gly | Ile | Leu | Ala | Val | | | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Cys | Trp | Met | Val | Val | Val | Thr | Leu | Val | Ala | Ser | Lys | Gly | Ile | Asn | Lys | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Ile | Ala | Arg | Ile | Thr | Ala | Val | Gly | Gly | Ile | Ser | Val | Met | Cys | Leu | Asn | | |

| | | | | | | | | | | | | | | | | | | | | |
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| | | | 180 | | | | | | 185 | | | | | | 190 | | | | | |
| Leu | Val | Leu | Leu | Leu | Val | Ser | Ile | Ala | Ile | Leu | Cys | Leu | Asn | Gly | Gly | | | | | |
| | | | 195 | | | | | | 200 | | | | | | 205 | | | | | |
| His | Phe | Ala | Gln | Glu | Val | Asn | Phe | Val | Ser | Ser | Pro | Asn | Pro | Gly | Tyr | | | | | |
| | | | 210 | | | | | | 215 | | | | | | 220 | | | | | |
| Gln | Ser | Gly | Leu | Ala | Met | Leu | Ser | Phe | Val | Val | Phe | Ala | Ile | Phe | Ala | | | | | |
| 225 | | | 230 | | | | | | 235 | | | | | | 240 | | | | | |
| Tyr | Gly | Gly | Ile | Glu | Ala | Val | Gly | Gly | Leu | Val | Asp | Lys | Thr | Glu | Asn | | | | | |
| | | | 245 | | | | | | 250 | | | | | | 255 | | | | | |
| Pro | Glu | Lys | Asn | Phe | Ala | Lys | Gly | Ile | Ile | Phe | Ala | Ala | Ile | Val | Ile | | | | | |
| | | | 260 | | | | | | 265 | | | | | | 270 | | | | | |
| Ser | Ile | Gly | Tyr | Ser | Leu | Ala | Ile | Phe | Leu | Trp | Gly | Val | Ser | Thr | Asn | | | | | |
| | | | 275 | | | | | | 280 | | | | | | 285 | | | | | |
| Trp | Gln | Gln | Val | Leu | Ser | Asn | Asn | Thr | Thr | Asn | Leu | Gly | Asn | Ile | Thr | | | | | |
| | | | 290 | | | | | | 295 | | | | | | 300 | | | | | |
| Tyr | Val | Leu | Met | Lys | Ser | Leu | Gly | Val | Thr | Leu | Gly | Asn | Ala | Met | Asp | | | | | |
| 305 | | | 310 | | | | | | 315 | | | | | | 320 | | | | | |
| Leu | Ala | Pro | Glu | Thr | Ser | Ala | Thr | Leu | Gly | Ile | Trp | Phe | Ala | Arg | Ile | | | | | |
| | | | 325 | | | | | | 330 | | | | | | 335 | | | | | |
| Thr | Gly | Leu | Ser | Met | Phe | Leu | Ala | Tyr | Thr | Gly | Ala | Phe | Phe | Thr | Leu | | | | | |
| | | | 340 | | | | | | 345 | | | | | | 350 | | | | | |
| Ile | Tyr | Ser | Pro | Leu | Lys | Ala | Ile | Ile | Gln | Gly | Thr | Pro | Lys | Ala | Leu | | | | | |
| | | | 355 | | | | | | 360 | | | | | | 365 | | | | | |
| Trp | Pro | Ala | Arg | Met | Thr | Gln | Leu | Asn | Ala | Ala | Gly | Met | Pro | Ala | Asn | | | | | |
| | | | 370 | | | | | | 375 | | | | | | 380 | | | | | |
| Ala | Met | Trp | Met | Gln | Cys | Met | Leu | Val | Cys | Val | Phe | Ile | Leu | Leu | Val | | | | | |
| 385 | | | 390 | | | | | | 395 | | | | | | 400 | | | | | |
| Ser | Phe | Gly | Gly | Asp | Thr | Ala | Ser | Ala | Phe | Tyr | Asn | Lys | Leu | Thr | Leu | | | | | |
| | | | 405 | | | | | | 410 | | | | | | 415 | | | | | |
| Met | Ala | Asn | Val | Ser | Met | Thr | Leu | Pro | Tyr | Leu | Phe | Leu | Thr | Leu | Ala | | | | | |
| | | | 420 | | | | | | 425 | | | | | | 430 | | | | | |
| Phe | Pro | Phe | Phe | Lys | Ala | Lys | Gln | Asp | Leu | Glu | Arg | Pro | Phe | Val | Ile | | | | | |
| | | | 435 | | | | | | 440 | | | | | | 445 | | | | | |
| Phe | Lys | Thr | Arg | Ala | Ala | Thr | Leu | Leu | Ala | Thr | Thr | Val | Val | Val | Leu | | | | | |
| | | | 450 | | | | | | 455 | | | | | | 460 | | | | | |
| Val | Val | Ala | Phe | Ala | Asn | Ile | Phe | Thr | Val | Ile | Gln | Pro | Val | Val | Glu | | | | | |
| 465 | | | 470 | | | | | | 475 | | | | | | 480 | | | | | |
| Ala | Asn | Asp | Trp | Asn | Ser | Thr | Leu | Trp | Met | Val | Gly | Gly | Pro | Ile | Phe | | | | | |
| | | | 485 | | | | | | 490 | | | | | | 495 | | | | | |
| Phe | Ser | Leu | Leu | Ala | Met | Gly | Ile | Tyr | Glu | His | Tyr | Arg | Arg | Arg | Ser | | | | | |
| | | | 500 | | | | | | 505 | | | | | | 510 | | | | | |
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| Gln | Ile | Arg | Ser | Phe | Trp | Ile | Ser | Glu | Arg | Lys | Ala | Pro | Tyr | Val | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Phe | Leu | Lys | Lys | Thr | Glu | Leu | Cys | His | Arg | Gly | Asp | Gln | Leu | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ile | Arg | Ser | Ala | Ile | Ser | Thr | Gly | Leu | Val | Leu | Asn | Asn | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
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| Ala | Asp | Leu | Asn | Arg | Phe | Leu | Asn | Asp | Gly | Asn | Thr | Ile | Asp | Thr | Glu |

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| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Pro | Lys | Pro | Pro | Ile | Asn | Val | Leu | Leu | Glu | Asn | Val | Leu | Asp | Gln | Lys | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Phe | Lys | Glu | Tyr | Leu | Thr | Pro | Leu | Gln | Leu | Asp | Asn | Ser | Lys | Gln | Asp | | |
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| Ser | Val | Ser | Val | Lys | Glu | Thr | Phe | Leu | Val | Gln | Lys | Glu | His | Ala | Cys | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Phe | Gly | Val | Lys | Ile | Glu | Asn | Glu | Gly | Ser | Asp | Thr | Ser | Ile | Pro | Ser | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Glu | Ser | Pro | Leu | Ser | Ser | Gly | Ala | Ser | Lys | Ile | Ser | Lys | Glu | Lys | Ser | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Ile | Ser | Ser | Val | Pro | Val | Leu | Glu | Lys | Val | Ser | Asp | Glu | Asn | Gln | | | |
| | | | 180 | | | | 185 | | | | | 190 | | | | | |
| Thr | Ala | Ser | Ile | Ser | Ile | Lys | Ser | Lys | Ala | Lys | Ala | Asn | Lys | Arg | Leu | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
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<210> 7316

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| Leu | His | Lys | Ile | Ser | Arg | Arg | Val | Arg | Ala | His | Met | Ser | His | Thr | Ile | | |
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| Arg | Asp | Lys | Gln | Lys | Leu | Lys | Ala | Arg | Thr | Ser | Lys | Ile | Gln | Gly | Gln | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Val | Ala | Ala | Leu | Lys | Lys | Met | Leu | Asp | Glu | Pro | His | Glu | Cys | Ala | Ala | | |
| | | 35 | | | | | 40 | | | | 45 | | | | | | |
| Val | Leu | Gln | Gln | Ile | Ala | Ala | Ile | Arg | Gly | Ala | Val | Asn | Gly | Leu | Leu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Arg | Glu | Val | Ile | Lys | Gly | His | Leu | Thr | Glu | His | Ile | Val | His | Glu | Ser | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Glu | Glu | Gln | Lys | Arg | Glu | Glu | Asp | Leu | Asp | Val | Val | Leu | Lys | Val | Leu | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
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| Glu | Trp | Lys | Arg | Ser | Tyr | Leu | Tyr | Arg | Gln | Tyr | Leu | Ala | Ser | Glu | Cys | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Ser | Glu | Arg | Ser | Tyr | Gln | His | Ile | Phe | Cys | Lys | Pro | Ala | Ser | Gly | Arg | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Arg | Lys | Lys | Met | Met | Ile | Glu | Asn | Asp | Lys | Glu | Lys | Ser | Leu | Asn | Asp | | |
| | | 35 | | | | | 40 | | | | 45 | | | | | | |
| Ala | Thr | Ser | Pro | Glu | Val | Gln | Asn | Asp | Ile | Arg | Ser | Glu | Ser | Thr | Glu | | |
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| Lys | Ser | Lys | Glu | Met | Gly | Arg | Ser | Arg | Tyr | Ser | Ser | Ile | Ala | Met | Ile | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Asp | Tyr | Phe | Asn | Ala | Ile | Glu | Arg | Leu | Cys | Glu | Glu | Lys | Lys | Ile | Asn | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Pro | Glu | Asn | Ile | Asp | Leu | Ser | Phe | Lys | Val | His | Trp | Leu | Arg | Asn | Ala | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Val | Gly | Gly | Ser | Phe | Ala | Arg | Ser | Gln | Glu | Met | Phe | Ala | Glu | Tyr | Gln | | |
| | | 115 | | | | | 120 | | | | | | 125 | | | | |

Lys Tyr Val Lys Glu Val Pro Glu Glu Ala Arg Tyr Leu Asp Ile Pro
 130 135 140
 Asp Glu Val Lys Val Ala Leu Gly Asp Ile Ile Ser Tyr Ile Thr Trp
 145 150 155 160
 His Tyr Arg Arg Ser Tyr Thr Ala Ile Gln Ser Asp Ser Val Lys Lys
 165 170 175
 Ala Glu Ala Arg Ser Met Gln Leu Glu Glu Glu Val Thr Gln Leu Leu
 180 185 190
 Gln Arg Leu Glu Gln Ser Ala Thr Asp Met Asp Glu Leu Lys Leu Glu
 195 200 205
 Asn Gln Ala Leu Gln Gly Arg Leu Glu Ile Arg Asp Ser Thr Val Lys
 210 215 220
 Glu Leu Glu Thr Arg Leu Asn Val Ala Glu Ala Glu Leu Glu Thr Cys
 225 230 235 240
 His His Gln Leu Asp Ser Thr Arg His Glu Leu Ser Leu Ala Gln Gln
 245 250 255
 Ser Asn Asp Ser Leu Ser Gln Gln Leu Ala Glu Arg Lys Thr Glu Ile
 260 265 270
 Ala Gly His Leu Glu Tyr Gln Lys Lys Leu Asn Glu Glu Ile Asn Thr
 275 280 285
 Gln Arg Ser Asp Asn Ala Gly Leu Ser Arg Gln Cys Asp Gln Leu Ser
 290 295 300
 Gln Thr Val Ser Asp Thr Lys Ala Glu Arg Asp Arg Phe Glu Gln Glu
 305 310 315 320
 Leu Ile Ala Ala Gln Asn Leu Cys Ala Glu Leu Lys Ser Ala Leu Ser
 325 330 335
 Gly Lys Glu Gly Asp Leu Val Ala Val Asn Ala Glu Leu Thr Glu Leu
 340 345 350
 His Lys Leu Asn Glu Ser Leu Ser Ala Asp Leu Lys Lys Val Thr Leu
 355 360 365
 Val Ser Gln Gly Tyr Glu Ala Glu Val Ala Glu Gln Ser Ser Glu Leu
 370 375 380
 Lys Thr Leu Gln Ser Lys Val Met Lys Leu Glu Ala Thr Leu Glu Ala
 385 390 395 400
 Glu Lys Thr Ile Ser Glu Ser Leu Lys Gly Thr Ile Asp Thr Leu Thr
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 Gly Ala Met Ala Gly Gly Gly Thr Gly Lys Ser Lys Gln Pro Arg Ser
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<212> PRT

<213> Enterobacter cloacae

<220>

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<222> (20)

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 35 40 45
 Asn Ile Gln Arg Lys Lys Asp Asn Leu Met Lys Pro Val Glu Arg Tyr
 50 55 60
 Leu Asp Gly Lys Arg Tyr Ser Phe Asn Val Leu Ser Val Thr Val Phe
 65 70 75 80

| | | | | | | | | | | | | | | | | | |
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| Pro | Glu | Ser | Leu | 85 | Pro | Ala | Val | Thr | Arg | Ala | Asp | Glu | Ile | Glu | Asp | Ile | |
| Ala | Ser | Phe | Glu | 100 | Ser | Ser | Leu | Val | Ile | Asp | Leu | Gly | Gly | Thr | Thr | Leu | |
| Asp | Val | Ala | Ser | 115 | Ile | Thr | Gly | Gln | Leu | Glu | Gln | Ile | Ser | Lys | Val | Lys | |
| Gly | Phe | Asp | Arg | 130 | Ile | Gly | Cys | Ser | Ile | Val | Tyr | Asp | Glu | Ile | Ser | Arg | |
| Tyr | Leu | Glu | Ser | 145 | Glu | Lys | Leu | Asn | Thr | Ser | Asn | Ala | Tyr | Ile | His | His | |
| Leu | Val | Asp | Asn | 165 | Arg | His | Asp | Lys | Ser | Ala | Leu | Lys | Val | Ala | Glu | Asp | |
| Lys | Arg | Asp | Gly | 180 | Val | Phe | Asp | Ala | Val | Asn | Ser | Ala | Val | Gln | Lys | Leu | |
| Gln | Ser | Lys | Val | 195 | Ile | Arg | Ala | Val | Thr | Gln | Val | Glu | Glu | Arg | Pro | His | |
| Asn | Val | Phe | Leu | 210 | Val | Gly | Gly | Gly | Ser | Tyr | Leu | Ile | Glu | Thr | Ala | Ile | |
| Arg | Lys | His | Phe | 225 | Glu | Thr | Ala | Lys | Val | Ile | Met | Val | Asp | Asn | Pro | Gln | |
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<211> 472

<212> PRT

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<400> 7319

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| Val | Thr | Ile | Tyr | 5 | Arg | Pro | Thr | Val | Ala | Gln | Glu | Met | Gly | Gly | Asp | His | |
| 1 | | | | 20 | Ala | Ala | Val | Met | Leu | Thr | Val | Trp | Trp | Leu | Ser | Ser | |
| Phe | Ile | Leu | Ile | 35 | Ser | Thr | Leu | Asn | Gly | Tyr | Phe | Asp | Asn | Gln | Asp | Arg | |
| Asp | Phe | Leu | Thr | 50 | Gly | Lys | Leu | Gln | Leu | Thr | Glu | Glu | Phe | Leu | Lys | Thr | |
| Glu | Thr | Phe | Arg | 65 | Asn | Lys | Thr | Asp | Ile | Lys | Ser | Leu | Ser | Glu | Lys | Ile | |
| Asn | Asp | Ala | Met | 85 | Val | Gly | His | Asn | Gly | Leu | Phe | Ile | Ser | Ile | Lys | Asn | |
| Met | Glu | Asn | Glu | 100 | Lys | Ile | Val | Glu | Leu | Tyr | Ala | Lys | Asn | Ser | Val | Val | |
| Pro | Ala | Val | Leu | 115 | Leu | Asn | Lys | Ser | Gly | Asp | Ile | Leu | Asp | Tyr | Met | Ile | |
| Gln | Thr | Glu | Glu | 130 | Asn | Asn | Thr | Val | Tyr | Arg | Ser | Ile | Ser | Arg | Arg | Val | |
| Ala | Val | Thr | Pro | 145 | Glu | Gln | Gly | Lys | Ser | Lys | His | Val | Ile | Ile | Thr | Val | |
| Ala | Thr | Asp | Thr | 165 | Gly | Tyr | His | Thr | Leu | Phe | Met | Asp | Lys | Leu | Ser | Thr | |
| Trp | Leu | Phe | Trp | 180 | Phe | Asn | Ile | Gly | Leu | Val | Phe | Ile | Ser | Val | Phe | Leu | |
| Gly | Trp | Leu | Thr | 195 | Thr | Arg | Ile | Gly | Leu | Lys | Pro | Leu | Arg | Glu | Met | Thr | |
| Ser | Leu | Ala | Ser | 210 | Ser | Met | Thr | Val | His | Ser | Leu | Asp | Gln | Arg | Leu | Asn | |
| Pro | Asp | Leu | Ala | 225 | Pro | Pro | Glu | Ile | Ser | Glu | Thr | Met | Gln | Glu | Phe | Asn | |
| Asn | Met | Phe | Asp | 245 | Arg | Leu | Glu | Gly | Ser | Phe | Arg | Lys | Leu | Ser | Asp | Phe | |

Ser Ser Asp Ile Ala His Glu Leu Arg Thr Ala Val Ser Asn Leu Met
 260 265 270
 Met Gln Thr Gln Phe Ala Leu Ala Lys Glu Arg Asp Val Ser His Tyr
 275 280 285
 Arg Glu Ile Leu Phe Ala Tyr Leu Glu Glu Leu Lys Arg Leu Ser Arg
 290 295 300
 Met Thr Ser Asp Met Leu Phe Leu Ala Arg Ser Glu His Gly Leu Leu
 305 310 315 320
 Gln Leu Asp Lys His Asp Val Asp Leu Ala Ala Glu Leu Asn Glu Leu
 325 330 335
 Arg Glu Leu Phe Glu Pro Leu Ala Asp Glu Thr Gly Lys Thr Ile Thr
 340 345 350
 Val Glu Gly Glu Gly Val Val Ala Gly Asp Ser Asp Met Leu Arg Arg
 355 360 365
 Ala Phe Ser Asn Leu Leu Ser Asn Ala Ile Lys Tyr Ser Pro Asp Asn
 370 375 380
 Thr Cys Thr Ala Ile His Leu Glu Arg Asp Ser Asp Cys Val Asn Val
 385 390 395 400
 Met Ile Thr Asn Thr Met Ser Gly Gln Val Pro Ala Asn Leu Glu Arg
 405 410 415
 Leu Phe Asp Arg Phe Tyr Arg Ala Asp Ser Ser Arg Val His Asn Thr
 420 425 430
 Glu Gly Ala Gly Leu Gly Leu Ser Ile Thr Arg Ser Ile Ile His Ala
 435 440 445
 His Gly Gly Glu Leu Ser Ala Glu Gln Gln Gly Arg Glu Ile Val Phe
 450 455 460
 Ser Val Arg Leu Leu Met Asp
 465 470

<210> 7320

<211> 275

<212> PRT

<213> Enterobacter cloacae

<400> 7320

Val Ile Val Val Ser Tyr Gln Gly Ser Glu Pro Val Pro Ala Ser Arg
 1 5 10 15
 Thr Gly Gln Leu Ile Ser Ala Arg Asp Met Ala Met Gln Lys Phe Glu
 20 25 30
 Glu Gly Met Arg Leu Ile Ser Glu Ala Ser Glu Leu Cys Gly Leu Ser
 35 40 45
 Leu Phe Thr Ser Arg Ile Met Gln Pro Asn Ala Phe Gly Leu Pro Ser
 50 55 60
 Ser Leu Asp Arg Thr Ile Glu Glu Gly Arg Lys Glu Ile Asp Arg Lys
 65 70 75 80
 Thr Trp Lys Arg Leu Phe Glu Glu Ile Gly Met Asp Arg Tyr Trp Asn
 85 90 95
 His Lys Gln Lys Glu Ala Phe Asn Glu Ser Leu Arg Thr Asp Pro Pro
 100 105 110
 Val Ala Ser Leu Glu Ile Val Lys Gly Thr Leu Gln His Ala Leu Ala
 115 120 125
 Asn Arg Arg Asp Thr Leu Ala Glu Gly Phe Val Asp Val Leu Asn Lys
 130 135 140
 Leu Asp Arg Ser Phe Lys Ser Asn Ala Arg Gln Tyr Thr Met Pro Lys
 145 150 155 160
 Lys Leu Val Leu Arg Gly Ile Phe Pro Gly Val Asn Val Leu Arg Tyr
 165 170 175
 Asn Gly Phe Ser Gln Asp Asn His Phe Cys Leu Arg Asp Phe Glu Asn
 180 185 190
 Ile Val Cys Ile Cys Ser Asp Thr Pro Thr Pro Ala Thr Gly Gly Gly
 195 200 205

Leu Ser Met Val Asp Arg Leu Thr Ala Met Arg Asn Thr Asp Phe Thr
 210 215 220
 Gly Glu Val Cys Asp Glu Asn Gly Trp Arg Cys Arg Leu Phe Glu Asn
 225 230 235 240
 Gly Asn Val His Ile Cys Ile Asp Ser Ile Ser Leu Leu Asn Ala Leu
 245 250 255
 Asn Asp Leu Ile Ser Ile Tyr Phe Ala Asn Gln Leu Pro Ala Ala Gly
 260 265 270
 Lys Lys
 275

<210> 7321

<211> 149

<212> PRT

<213> Enterobacter cloacae

<400> 7321

Val Ala Ala Lys Thr Asn Lys Asp Asp Thr Phe Thr Val Leu Gly Ser
 1 5 10 15
 Glu Met Thr Ala Ile Asp Asp Phe Arg Ile Ile Arg Ala Arg Ala Phe
 20 25 30
 Ala Val Cys Asp Val Val Ala Lys Leu Ile Glu Arg Phe His Asp Asp
 35 40 45
 Val Lys Gly Ile Thr Leu Ile Val Thr Leu Gln Ile Phe Tyr Val Phe
 50 55 60
 Gln Asn Lys Asn Cys Arg Leu Phe Cys Pro Asp Asp Pro Gly His Ile
 65 70 75 80
 Lys Glu Glu Arg Thr Leu Ser Val Ala Leu Glu Thr Val Phe Ala Thr
 85 90 95
 His Arg Val Leu Phe Thr Asp Thr Gly Asp Ala Glu Trp Leu Ala Trp
 100 105 110
 Lys Ser Arg Lys Lys Asn Ile Met Ile Arg Asp Arg Gly Ile Asp Lys
 115 120 125
 Phe Val Cys Leu Val Ile Ser Asn Leu Gly Pro Val Ala Lys Ser Asp
 130 135 140
 Val Thr Asp Val
 145

<210> 7322

<211> 85

<212> PRT

<213> Enterobacter cloacae

<400> 7322

Val Arg Asn Val Val Gln Arg Gln Val Cys Thr Asp Asp Phe Met Cys
 1 5 10 15
 Val Ala Val Asn Cys Gln Met Gln Leu Thr Pro Tyr Thr Ala Ala Phe
 20 25 30
 Leu Ala Met Leu Phe Asp Phe Pro Leu Ala Phe Thr Glu Asp Leu Gln
 35 40 45
 Pro Gly Gly Ile Asn Tyr Gln Val Cys Asp Phe Thr Pro Gly Gly Arg
 50 55 60
 Phe Glu Thr Asp Ile Asn Arg Leu Cys Pro Pro Ala Asp Thr Ala Val
 65 70 75 80
 Ile Arg Ala Ala
 85

<210> 7323

<211> 156

<212> PRT

<213> Enterobacter cloacae

<400> 7323

```

Leu Phe Gly Tyr Glu Asn Thr Gly Asp Pro Thr Met Lys Lys Ile Leu
1      5      10      15
Val Ser Phe Val Ala Ile Met Ala Val Ala Ser Ser Ala Met Ala Ala
      20      25      30
Glu Thr Met Asn Met His Asp Gln Val Asn Asn Ala Gln Ala Pro Ala
      35      40      45
His Gln Met Gln Ser Thr Ser Glu Lys Ser Ala Val Gln Gly Asp Ser
      50      55      60
Met Thr Met Met Asp Met Ser Gly His Asp Gln Ala Ala Met Ser His
65      70      75      80
Glu Met Met Gln Asn Gly Asn Ala Ser Ala His Gln Asp Met Ala Glu
      85      90      95
Met His Lys Lys Met Met Lys Gly Lys Pro Gly Ala Thr Asn Glu Ser
      100      105      110
Ala Thr Ser Phe Ser Glu Met Asn Glu His Glu Lys Ala Ala Val Val
      115      120      125
His Glu Lys Ala Asn Asn Gly Gln Ser Ser Val Ile His Gln Gln Gln
      130      135      140
Ala Glu Lys His Arg Ser Gln Ile Thr Gln Asn
145      150      155

```

<210> 7324

<211> 195

<212> PRT

<213> Enterobacter cloacae

<400> 7324

```

Leu Val Lys Ile Leu Pro Val Asn Arg Leu Val Asp Thr Cys Leu Tyr
1      5      10      15
Ser Thr Asn Ser Gly Glu Met Met Phe Phe Phe Thr Lys Leu Leu Leu
      20      25      30
Pro Ile Met Ile Val Val Phe Pro Val Ala Ser Trp Gly Asn Ser Thr
      35      40      45
Thr Phe Glu Ala Lys Val Val Lys Ile Val Asp Gly Asp Thr Ile Thr
      50      55      60
Ala Leu Asp Ala Gln Asn Thr Thr Ile Lys Ile Arg Met Tyr Gly Ile
65      70      75      80
Asp Ala Pro Glu Ser Lys Gln Ala Phe Gly Gln Lys Ala Lys Gln Ala
      85      90      95
Leu Thr Thr Ala Ile Ala Thr Lys Ile Val Thr Val Ile Asp His Gly
      100      105      110
Thr Asp Ile Tyr Gly Arg Met Leu Gly Thr Ile Trp Leu Asp Gly Tyr
      115      120      125
Asp Ile Asn Ala Ser Met Val Asp Ser Gly Tyr Ala Trp Val Tyr Arg
      130      135      140
Phe Glu Asp Asn Ala Ile Val Pro Gly Tyr Ile Lys Tyr Glu Ser Ala
145      150      155      160
Ala Gln Lys Glu Ala Lys Gly Leu Trp Ala Asp Thr Asn Pro Val Pro
      165      170      175
Pro Trp Gln Trp Arg Gln Ala Asn Glu Lys Pro Arg Lys Val Lys Gly
      180      185      190
Lys Lys
      195

```

<210> 7325

<211> 512

<212> PRT

<213> Enterobacter cloacae

<400> 7325

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Cys | His | Val | His | Ala | Pro | Thr | Gly | Asn | Gly | Val | Thr | Leu | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ser | Gln | Val | Ser | Tyr | Tyr | Met | Thr | Gln | Arg | Lys | Lys | Gly | Ala | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | His | Ile | Ser | Ala | Met | Lys | Ala | Gly | Ile | Ser | Val | Arg | Ser | Gly | Arg |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Arg | Ile | Glu | Lys | Asp | Gln | Trp | Ser | Lys | Ala | Gly | Glu | Arg | His | Trp | Arg |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Thr | Arg | Lys | Asp | Pro | Leu | Glu | Ala | Val | Trp | Asp | Ser | Glu | Leu | Val | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Leu | Lys | Glu | Arg | Pro | Ala | Leu | Met | Pro | Thr | Thr | Leu | Leu | Glu | Met |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Gln | Asp | Lys | Tyr | Pro | Gly | Gln | Tyr | Pro | Asn | Asn | Leu | Arg | Arg | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Gln | Arg | Arg | Val | Arg | Glu | Trp | Lys | Leu | Gln | Tyr | Gly | Ala | Glu | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Val | Met | Phe | Arg | Gln | Arg | His | Gln | Pro | Gly | Leu | Arg | Gly | Leu | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Phe | Thr | Glu | Leu | Lys | Gly | Val | Val | Val | Thr | Ile | Ala | Gly | Lys | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Ala | His | Lys | Leu | Tyr | His | Phe | Arg | Leu | Glu | Trp | Ser | His | Trp | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Trp | Met | Arg | Val | Val | Leu | Gly | Gly | Glu | Ser | Phe | Ser | Ala | Leu | Ala | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Leu | Gln | Glu | Ala | Leu | Gly | Gln | Leu | Gly | Gly | Val | Pro | Ser | Glu | His |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Thr | Asp | Ser | Leu | Arg | Ala | Ala | Trp | Lys | His | Arg | Gly | Glu | Asp | Gly |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Gln | Arg | Glu | Leu | Thr | Glu | Arg | Tyr | Ala | Glu | Leu | Cys | Arg | His | Tyr | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Met | Gln | Gly | Val | His | Asn | Asn | Ala | Gly | Arg | Gly | His | Glu | Asn | Gly | Ser |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Val | Glu | Ser | Ala | His | Gly | His | Leu | Lys | Arg | Arg | Ile | Arg | Gln | Ala | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Leu | Arg | Gly | Ser | Asn | Asp | Phe | Ser | Thr | Leu | Glu | Glu | Tyr | Gln | Ala |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Phe | Ile | Thr | Gln | Gln | Val | Met | Arg | His | Asn | Arg | Asn | Asn | Gln | Asp | Leu |
| 290 | | | | | 295 | | | | | | 300 | | | | |
| Val | Lys | Glu | Glu | Gln | Pro | His | Leu | Lys | Pro | Leu | Pro | Leu | Arg | Arg | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Asp | Tyr | Asp | Glu | Leu | Thr | Val | Arg | Val | Ser | Ser | Ser | Ser | Thr | Ile |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asn | Val | Arg | His | Val | Ile | Tyr | Ser | Val | Pro | Ser | Arg | Leu | Val | Gly | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Leu | Arg | Val | Arg | Leu | Trp | Asp | Asp | Arg | Leu | Ser | Cys | Tyr | Val | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Asn | Glu | Val | Met | Asn | Cys | Pro | Arg | Val | Arg | Pro | Glu | Lys | Gly | Lys |
| | 370 | | | | 375 | | | | | | 380 | | | | |
| Thr | Arg | Ala | Arg | Arg | Ile | Asp | Phe | Arg | His | Val | Ile | Asp | Ser | Leu | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Lys | Lys | Pro | Gly | Ala | Phe | Cys | His | Ala | Thr | Leu | Arg | Asn | Asp | Ile | Leu |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Pro | Asp | Asp | Glu | Trp | Arg | Lys | Leu | Trp | Arg | Arg | Leu | Cys | Asn | His | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | Pro | Glu | Met | Ala | Gly | Arg | Leu | Met | Val | His | Ala | Leu | Lys | Leu | Ala |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Gly | Tyr | Asp | Asp | Ile | Ser | Val | Val | Ala | Arg | Gly | Met | Glu | Gln | Met |
| | 450 | | | | 455 | | | | | | 460 | | | | |
| Leu | Asn | Thr | Pro | Gly | Glu | Leu | Asp | Leu | Asn | Arg | Leu | Met | Arg | Phe | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Lys | Glu | Lys | Glu | Leu | Pro | Pro | Val | Ser | Val | Val | Gln | His | Asn |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Leu | Ser | Ser | Tyr | Glu | Gln | Leu | Leu | Arg | Gly | Lys | Gly | Gly | Leu | Gln | |
| | | | 500 | | | | | 505 | | | | | 510 | | |

<210> 7326

<211> 367

<212> PRT

<213> Enterobacter cloacae

<400> 7326

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Asn | Gly | Arg | Leu | Pro | Ser | Leu | Val | Pro | Gln | Trp | Asp | Asp | Lys | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Leu | Ile | Glu | Arg | Ser | Ala | Ala | Ile | Met | Asn | Val | Lys | Thr | Ile | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Asp | Leu | Ala | Lys | Asn | Val | Phe | Gln | Ile | His | Gly | Val | Asp | Glu | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Lys | Arg | Leu | Phe | Asn | Lys | Gln | Leu | Arg | Arg | Ala | Gln | Met | Ala | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Phe | Ala | Asn | Ile | Pro | Cys | Leu | Ile | Gly | Met | Glu | Ala | Cys | Ala | |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Ala | His | Phe | Trp | Ala | Asn | Lys | Leu | Ile | Ser | Met | Gly | His | Asn | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Lys | Leu | Met | Ala | Pro | Gln | Phe | Val | Lys | Pro | Tyr | Val | Lys | Thr | Asn | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Asp | Ala | Ala | Asp | Ala | Glu | Ala | Ile | Cys | Glu | Ala | Val | Thr | Arg | Pro |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Asn | Met | Arg | Phe | Val | Pro | Val | Lys | Thr | Ala | Glu | Gln | Gln | Ala | Val | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Leu | His | Arg | Ser | Arg | Gln | Ser | Phe | Ile | Lys | Gln | Arg | Thr | Ala | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Asn | Gln | Ile | Arg | Gly | Leu | Leu | Ala | Glu | Phe | Gly | Ile | Val | Val | Pro |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Arg | Gly | Ile | Gln | Gln | Leu | Gln | Arg | Arg | Leu | Pro | Glu | Leu | Val | Glu | Asp |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ala | Asp | Asn | Pro | Leu | Pro | Val | Leu | Phe | Arg | Thr | Gln | Leu | Ser | Leu | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | His | His | Met | Ala | Tyr | Leu | Phe | Asp | Val | Ile | Ala | Thr | Leu | Asp | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Ile | Glu | Gln | Cys | Tyr | Arg | Gln | Asn | Ala | Leu | Cys | Gln | Arg | Ile | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Ile | Pro | Gly | Ile | Gly | Pro | Val | Thr | Ala | Ser | Ala | Leu | Ile | Ala | Thr |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ile | Gly | Lys | Ala | Asn | Asn | Phe | Glu | Asn | Gly | Arg | Gln | Leu | Ala | Ala | Trp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Gly | Leu | Val | Pro | Arg | Gln | His | Ser | Ser | Gly | Gly | Lys | Gln | Val | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Gly | Ile | Ser | Lys | Arg | Gly | Asp | Thr | Tyr | Leu | Arg | Thr | Leu | Leu | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Gly | Ala | Arg | Ala | Val | Leu | Gln | Ser | Ala | Lys | His | Lys | Gln | Asp | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Val | Ser | Ser | Trp | Ala | Asn | Gln | Leu | Met | Ala | Arg | Arg | Asn | Asn | Asn | Ile |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ala | Ser | Val | Ala | Leu | Ala | Asn | Lys | Asn | Ala | Arg | Thr | Val | Trp | Ala | Leu |
| | | | 340 | | | | 345 | | | | | | 350 | | |
| Leu | Ala | Lys | Glu | Arg | Glu | Tyr | Cys | Ala | Pro | Ile | Ile | Ser | Ala | | |
| | | 355 | | | | | 360 | | | | | 365 | | | |

<210> 7327

<211> 330

<212> PRT

<213> Enterobacter cloacae

<400> 7327

Ile Asn Arg Thr Phe Ala Glu Leu Lys Asp Gln Ile Thr His Leu Pro
 1 5 10 15
 Asp Asn Ala Asp Arg Ser Val Ala Lys Gln Lys Phe Lys Ile Thr Asn
 20 25 30
 Trp Pro Thr Tyr Asn Lys Ala Leu Ile Asn Arg Gly Ser Ile Thr Phe
 35 40 45
 Trp Leu Asp Asp Glu Ala Ile Gln Ala Trp Tyr Glu Ser Ala Thr Pro
 50 55 60
 Ser Ser Arg Gly Arg Pro Gln Arg Tyr Ser Asp Leu Ala Ile Thr Thr
 65 70 75 80
 Val Leu Val Ile Lys Arg Val Phe Arg Leu Thr Leu Arg Ala Ala Gln
 85 90 95
 Gly Phe Ile Asp Ser Ile Phe Ser Leu Met Asn Val Pro Leu Arg Cys
 100 105 110
 Pro Asp Tyr Ser Cys Val Ser Arg Arg Ala Lys Ser Val Asn Val Ser
 115 120 125
 Phe Lys Thr Pro Thr Arg Gly Glu Ile Ala His Leu Val Ile Asp Ser
 130 135 140
 Thr Gly Leu Lys Val Phe Gly Glu Gly Glu Trp Lys Val Lys Lys His
 145 150 155 160
 Gly Gln Glu Arg Arg Arg Ile Trp Arg Lys Leu His Leu Ala Val Asp
 165 170 175
 Ser Asn Thr His Glu Ile Ile Cys Ala Asp Leu Ser Leu Asn Asn Val
 180 185 190
 Thr Asp Ser Glu Ala Phe Pro Gly Leu Ile Arg Gln Thr His Arg Lys
 195 200 205
 Ile Arg Ser Ala Ala Ala Asp Gly Ala Tyr Asp Thr Arg Leu Cys His
 210 215 220
 Asp Glu Leu Arg Arg Lys Lys Ile Ser Ala Leu Ile Pro Pro Arg Lys
 225 230 235 240
 Gly Ala Gly Tyr Trp Pro Gly Glu Tyr Ala Asp Arg Asn Arg Ala Val
 245 250 255
 Ala Asn Gln Arg Met Thr Gly Ser Asn Ala Arg Trp Lys Trp Thr Thr
 260 265 270
 Asp Tyr Asn Arg Arg Ser Ile Ala Glu Thr Ala Met Tyr Arg Val Lys
 275 280 285
 Gln Leu Phe Gly Gly Ser Leu Thr Leu Arg Asp Tyr Asp Gly Gln Val
 290 295 300
 Ala Glu Ala Met Ala Leu Val Arg Ala Leu Asn Lys Met Thr Lys Ala
 305 310 315 320
 Gly Met Pro Glu Ser Val Arg Ile Ala
 325 330

<210> 7328

<211> 494

<212> PRT

<213> Enterobacter cloacae

<400> 7328

Ser Lys Leu Ser Val Leu Ile Tyr Leu Lys Asp Ile Ile Pro Glu Arg
 1 5 10 15
 Val Trp Met Lys Arg Tyr Thr His Asp Leu Glu Thr Asp Leu Asn Asp
 20 25 30
 Val Asp Lys Thr Pro Ser Leu Ile His Lys Thr Leu Leu Thr Ala Ser
 35 40 45
 Thr Ile Tyr Asp Leu Lys Tyr Leu Ala Gln Val Leu Asn Asp Glu Asn
 50 55 60
 Gly Ser Asn Trp Ser Arg Ala Ser Leu Lys Arg Gln Val Thr Cys Ile

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Glu | His | Cys | Asp | Leu | Ser | Ile | Ala | Asp | Gly | Arg | Tyr | Leu | Gln | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ile | Pro | Ser | Arg | Pro | Ala | Asp | Tyr | Glu | Asp | Arg | His | Phe | Ser | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Asp | Leu | Phe | Ala | Gly | Ile | Gly | Gly | Leu | Arg | Ser | Gly | Phe | Asp | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Gly | Gly | Lys | Cys | Leu | Phe | Thr | Ser | Glu | Trp | Asn | Thr | Tyr | Ser | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Thr | Tyr | Arg | Ala | Asn | Trp | Tyr | Cys | Asp | Glu | Asn | Glu | His | Arg | Phe |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Asn | Ser | Asp | Ile | Arg | Asp | Ile | Thr | Leu | Ser | Asn | Arg | Pro | Glu | Val | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Asp | Glu | Ala | Tyr | Lys | Phe | Ile | Asp | Ala | Ser | Ile | Pro | Asp | His | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Leu | Leu | Ala | Gly | Phe | Pro | Cys | Gln | Pro | Phe | Ser | Ile | Ala | Gly | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Lys | Lys | Asn | Ser | Met | Gly | Arg | Lys | His | Gly | Phe | Glu | Cys | Asp | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Gly | Thr | Leu | Phe | Phe | Asp | Val | Ala | Arg | Ile | Ile | Arg | Ala | Lys | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Ala | Ile | Phe | Val | Leu | Glu | Asn | Val | Lys | Asn | Leu | Lys | Ser | His | Asp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Lys | Gly | Asn | Thr | Phe | Asn | Ile | Ile | Met | Lys | Thr | Leu | Asp | Glu | Leu | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Tyr | Asp | Val | Ala | Asn | Ser | Glu | Ser | Thr | Gly | Ala | Asp | Asp | Pro | Lys | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Asp | Gly | Arg | His | Phe | Arg | Pro | Gln | His | Arg | Glu | Arg | Ile | Val | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Gly | Phe | Arg | Arg | Asp | Leu | Arg | Leu | Lys | Asp | Gly | Phe | Thr | Leu | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Ile | Lys | Asp | Phe | Tyr | Pro | Asp | Lys | Arg | Pro | Ser | Leu | Ser | Asp | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Asp | Pro | Ser | Val | Asp | Ser | Lys | Tyr | Ile | Leu | Ser | Pro | Lys | Leu | Trp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Tyr | Leu | Tyr | Asn | Tyr | Ala | Lys | Lys | His | Ala | Ala | Lys | Gly | Asn | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Phe | Gly | Phe | Gly | Leu | Val | Asp | Pro | Ser | Asn | Val | Asn | Ser | Val | Thr | Arg |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Thr | Leu | Ser | Ser | Arg | Tyr | Met | Lys | Asp | Gly | Ser | Glu | Ile | Leu | Ile | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Arg | Gly | Trp | Ser | His | Glu | Leu | Gly | Glu | Thr | Asp | Phe | His | Asn | Thr | Tyr |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Asn | Met | Asp | Arg | Arg | Pro | Arg | Met | Leu | Thr | Pro | Arg | Glu | Cys | Ser | Arg |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Met | Gly | Phe | Asp | Lys | Pro | Gly | Glu | Ser | Val | Phe | Arg | Ile | Pro | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ser | Asn | Thr | Gln | Ala | Tyr | Arg | Gln | Phe | Gly | Asn | Ser | Val | Val | Val | Asp |
| | 450 | | | | | 455 | | | | 460 | | | | | |
| Val | Phe | Ala | Ala | Val | Ala | Lys | Leu | Leu | Lys | Ser | Arg | Ile | Glu | Phe | Ala |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Ser | Gln | Arg | Leu | Arg | Gln | Phe | Tyr | Asp | Glu | Val | Ser | | | |
| | | | | 485 | | | | | 490 | | | | | | |

<210> 7329

<211> 262

<212> PRT

<213> Enterobacter cloacae

<400> 7329

Ala Val Ala Ala Trp Lys Arg Arg Ser Ala Val Ser Asn Ile His His

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Leu | Glu | Arg | Ser | Leu | Arg | Lys | Leu | Arg | Leu | Thr | Arg | Val | Gly |
| | | | 20 | | | | | 25 | | | | | 30 |
| Trp | His | Ala | Leu | Glu | Lys | Arg | Ala | Leu | Ala | Glu | Gly | Trp | Thr |
| | | 35 | | | | | 40 | | | | | 45 | Pro |
| Arg | Tyr | Leu | Leu | Thr | Leu | Cys | Asn | Glu | Glu | Leu | Leu | Trp | Arg |
| | | 50 | | | | 55 | | | | | 60 | | Glu |
| Glu | Lys | Leu | Arg | Arg | Tyr | Lys | Lys | Glu | Ala | Arg | Leu | Pro | Val |
| 65 | | | | | 70 | | | | | 75 | | | 80 |
| Thr | Leu | Gly | Glu | Tyr | Asp | Phe | Ala | Gln | Val | Pro | Glu | Leu | Asn |
| | | | | 85 | | | | | 90 | | | | 95 |
| Gln | Phe | Arg | Gln | Leu | Cys | Glu | Thr | Thr | Asp | Trp | Val | Asp | Ala |
| | | | 100 | | | | | 105 | | | | | 110 |
| Asn | Val | Leu | Leu | Phe | Gly | Ala | Ser | Gly | Leu | Gly | Lys | Ser | His |
| | | 115 | | | | | 120 | | | | | 125 | Leu |
| Ala | Ala | Ile | Val | Asp | Gly | Val | Val | Gly | Gln | Gly | Tyr | Arg | Ala |
| | | 130 | | | | 135 | | | | | 140 | | Arg |
| Tyr | Ser | Ala | Gly | Glu | Leu | Leu | Gln | Glu | Leu | Arg | Lys | Ala | Arg |
| 145 | | | | | 150 | | | | | 155 | | | 160 |
| Leu | Lys | Leu | Asn | Glu | Leu | Leu | Leu | Lys | Leu | Asp | Arg | Tyr | Arg |
| | | | 165 | | | | | | 170 | | | | 175 |
| Val | Val | Asp | Asp | Leu | Gly | Tyr | Val | Lys | Arg | Asp | Asn | Ala | Glu |
| | | 180 | | | | | | 185 | | | | | 190 |
| Val | Leu | Phe | Glu | Leu | Ile | Ala | His | Arg | Tyr | Glu | Arg | Gly | Ser |
| | | 195 | | | | 200 | | | | | | 205 | Leu |
| Ile | Thr | Ser | Asn | His | Pro | Phe | Ser | Thr | Trp | Gly | Ser | Ile | Phe |
| | | 210 | | | | 215 | | | | | 220 | | Val |
| Glu | Thr | Met | Ala | Val | Ala | Ala | Ala | Asp | Arg | Leu | Ile | His | His |
| 225 | | | | | 230 | | | | | 235 | | | Gly |
| Met | Phe | Glu | Leu | Lys | Gly | Glu | Ser | Tyr | Arg | Lys | Lys | Thr | Ala |
| | | | | 245 | | | | | 250 | | | | Lys |
| | | | | | | | | | | | | | 255 |
| Val | Thr | Ser | Ala | Thr | | | | | | | | | |
| | | | 260 | | | | | | | | | | |

<210> 7330

<211> 377

<212> PRT

<213> Enterobacter cloacae

<400> 7330

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Arg | Met | Ile | Leu | Met | Asn | Glu | Phe | Thr | Thr | Leu | Leu | Gln | Gln | Gly |
| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Asn | Ala | Trp | Phe | Phe | Ile | Pro | Ser | Ala | Ile | Leu | Leu | Gly | Ala | Leu | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Leu | Glu | Pro | Gly | His | Ser | Lys | Thr | Met | Met | Ala | Ala | Phe | Ile | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ile | Lys | Gly | Thr | Val | Arg | Gln | Ala | Val | Met | Leu | Gly | Val | Ala | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Leu | Ser | His | Thr | Ala | Val | Val | Trp | Leu | Ile | Ala | Phe | Gly | Gly | Met |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Tyr | Ile | Ser | Asn | Lys | Phe | Thr | Ala | Glu | Ser | Ala | Glu | Pro | Trp | Leu | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Met | Val | Ser | Ser | Val | Ile | Ile | Leu | Gly | Thr | Ala | Phe | Trp | Met | Phe | Trp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Thr | Trp | Ser | Gly | Glu | Lys | Asn | Trp | Leu | Glu | Gly | Met | Gln | Glu | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | His | His | His | Asp | Glu | Thr | Arg | Leu | Ile | Asp | Thr | Gly | His | Gly | |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Lys | Val | Glu | Leu | Ser | Ile | Phe | Glu | Glu | Gly | Gln | Leu | Pro | His | Trp | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Arg | Thr | Leu | Ser | Gly | Gln | Arg | Trp | Ala | Ser | Glu | Asp | Ile | Ser | Leu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 165 | | | | 170 | | | | | 175 | | | | |
| Thr | Thr | Leu | Arg | Glu | Asn | Ser | Thr | Ile | Ser | Gln | Thr | Phe | Glu | Phe | Val | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Asp | His | Gly | Asp | Tyr | Leu | Glu | Ser | Thr | Ser | Pro | Ile | Pro | Glu | Pro | His | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Ser | Phe | Asn | Val | Arg | Leu | Ser | Leu | Gly | His | Arg | Gly | His | Val | His | Asp | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Tyr | Asp | Val | Ala | Phe | Ala | Glu | His | Asp | His | Asp | His | Asp | His | Ser | Glu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Leu | Asp | Gly | Leu | Asp | Val | Asn | Ser | Lys | Glu | Tyr | Gln | Asp | Ala | His | Glu | | |
| | | | | 245 | | | | | 250 | | | | | | 255 | | |
| Leu | Ala | His | Ala | Asn | Asp | Ile | Lys | Arg | Arg | Phe | Asp | Gly | Lys | Glu | Val | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Thr | Asn | Gly | Gln | Ile | Leu | Ile | Phe | Gly | Leu | Thr | Gly | Gly | Leu | Ile | Pro | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Cys | Pro | Ala | Ala | Ile | Thr | Val | Leu | Leu | Ile | Cys | Leu | Gln | Leu | Lys | Ala | | |
| | 290 | | | | | 295 | | | | 300 | | | | | | | |
| Leu | Thr | Leu | Gly | Ala | Thr | Leu | Val | Val | Cys | Phe | Ser | Ile | Gly | Leu | Ala | | |
| 305 | | | | 310 | | | | | 315 | | | | | | 320 | | |
| Leu | Thr | Leu | Val | Thr | Val | Gly | Val | Gly | Ala | Ala | Ile | Ser | Val | Arg | Gln | | |
| | | | | 325 | | | | 330 | | | | | | 335 | | | |
| Val | Ala | Lys | Arg | Trp | Ser | Gly | Phe | Asn | Thr | Ile | Ala | Arg | Arg | Ala | Pro | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Tyr | Ile | Ser | Ser | Ala | Leu | Ile | Ala | Ala | Val | Gly | Ile | Tyr | Met | Gly | Ile | | |
| | 355 | | | | | 360 | | | | | | 365 | | | | | |
| His | Gly | Trp | Asn | Gly | Leu | Val | His | | | | | | | | | | |
| | 370 | | | | | 375 | | | | | | | | | | | |

<210> 7331

<211> 342

<212> PRT

<213> Enterobacter cloacae

<400> 7331

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asn | Ser | Cys | Ala | Val | Asp | Gln | Arg | Val | Tyr | Leu | Lys | Lys | Gly | Leu | Leu | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Met | Leu | Leu | Ala | Thr | Ala | Leu | Leu | Ile | Ile | Gly | Leu | Leu | Leu | Val | Val | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Tyr | Ser | Ala | Asp | Arg | Leu | Val | Phe | Ala | Ala | Ser | Ile | Leu | Cys | Arg | Leu | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Ile | Gly | Met | Pro | Pro | Ile | Ile | Ile | Gly | Met | Thr | Val | Val | Ser | Val | Gly | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Thr | Ser | Leu | Pro | Glu | Ile | Ile | Val | Ser | Val | Ser | Ala | Ser | Leu | His | Gly | | |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | | | |
| Gln | Val | Asp | Leu | Ala | Ile | Gly | Thr | Ala | Ile | Gly | Ser | Asn | Ile | Val | Asn | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Ile | Leu | Leu | Ile | Leu | Gly | Leu | Ala | Ala | Leu | Leu | His | Pro | Phe | Arg | Val | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| His | Ser | Asp | Val | Leu | Arg | Arg | Glu | Leu | Pro | Leu | Met | Leu | Val | Val | Ser | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Leu | Ala | Gly | Tyr | Val | Leu | Tyr | Asp | Gly | Val | Leu | Ser | Val | Gly | Asp | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gly | Ile | Phe | Leu | Leu | Ala | Leu | Ala | Val | Ile | Trp | Leu | Leu | Tyr | Ser | Val | | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Lys | Ile | Ala | Arg | Leu | Ala | Glu | Lys | Gln | Gly | Asn | Asp | Ser | Leu | Thr | Arg | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Glu | His | Leu | Ala | Glu | Leu | Pro | Arg | Glu | Gly | Thr | Leu | Pro | Val | Ala | Leu | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Leu | Trp | Leu | Gly | Val | Ala | Leu | Ile | Ile | Met | Pro | Met | Ala | Thr | Arg | Met | | |
| | 195 | | | | | 200 | | | | | | 205 | | | | | |
| Val | Val | Asp | Asn | Ala | Thr | Val | Leu | Ala | Asn | Ala | Phe | Ala | Met | Ser | Glu | | |

| | | | | |
|---|-----|-----|-----|-----|
| 210 | | 215 | | 220 |
| Leu Thr Ile Gly Leu Thr Val Ile Ala Ile Gly Thr Ser Leu Pro Glu | | | | |
| 225 | | 230 | | 235 |
| Leu Ala Thr Ala Ile Ala Gly Ala Arg Lys Gly Glu Asp Asp Ile Ala | | | | |
| | 245 | | 250 | 255 |
| Ile Gly Asn Ile Ile Gly Ser Asn Ile Phe Asn Ile Ala Ile Val Thr | | | | |
| | 260 | | 265 | 270 |
| Gly Leu Pro Ala Leu Ile Ser Pro Gly Pro Phe Asn Pro Met Val Phe | | | | |
| | 275 | | 280 | 285 |
| Thr Arg Asp Tyr Gly Val Met Leu Leu Val Ser Val Ile Phe Ala Leu | | | | |
| | 290 | | 295 | 300 |
| Leu Cys Trp Arg Arg Lys Glu Gln Ile Gly Lys Gly Ala Gly Ala Leu | | | | |
| 305 | | 310 | | 315 |
| Leu Thr Gly Gly Phe Ile Val Trp Leu Ala Met Leu Tyr Trp Leu Ser | | | | |
| | 325 | | 330 | 335 |
| Pro Leu Leu Ser Gly | | | | |
| | 340 | | | |

<210> 7332
 <211> 202
 <212> PRT
 <213> Enterobacter cloacae

| |
|---|
| <400> 7332 |
| Ser Ala Ala Arg Trp Arg Ser Val Met Lys Asp Lys Thr Met Ser Asn |
| 1 5 10 15 |
| Ala Gly Ala Ser Leu Ala Thr Cys Tyr Gly Pro Val Ser Ala His Met |
| 20 25 30 |
| Met Ser Lys Ala Glu Asn Ile Arg Leu Leu Ile Leu Asp Val Asp Gly |
| 35 40 45 |
| Val Leu Ser Asp Gly Leu Ile Tyr Met Gly Asn Asn Gly Glu Glu Leu |
| 50 55 60 |
| Lys Ala Phe Asn Val Arg Asp Gly Tyr Gly Ile Arg Cys Ala Leu Thr |
| 65 70 75 80 |
| Ser Gly Ile Glu Val Ala Ile Ile Thr Gly Arg Lys Ala Lys Leu Val |
| 85 90 95 |
| Glu Asp Arg Cys Glu Thr Leu Gly Ile Thr His Leu Tyr Gln Gly Gln |
| 100 105 110 |
| Ser Asp Lys Met Val Ala Phe Arg Asp Leu Leu Gly Lys Leu Ala Ile |
| 115 120 125 |
| Ala Pro Glu Asn Val Ala Tyr Val Gly Asp Asp Leu Ile Asp Trp Pro |
| 130 135 140 |
| Val Met Ala Glu Val Gly Leu Ser Ile Ala Val Ala Asp Ala His Pro |
| 145 150 155 160 |
| Leu Leu Ile Pro Arg Ala Asp Tyr Val Thr His Ile His Gly Gly Arg |
| 165 170 175 |
| Gly Ala Val Arg Glu Val Cys Asp Leu Leu Leu Ala Gln Gly Lys |
| 180 185 190 |
| Leu Asp Glu Ala Lys Gly Gln Ser Ile |
| 195 200 |

<210> 7333
 <211> 192
 <212> PRT
 <213> Enterobacter cloacae

| |
|---|
| <400> 7333 |
| Leu Lys Arg Leu Glu Pro Pro Met Lys Phe Lys Thr Asn Lys Leu Ser |
| 1 5 10 15 |
| Leu Lys Val Val Ile Ala Ser Ala Leu Leu Ala Ala Ser Leu Pro Ala |
| 20 25 30 |

Leu Ala Val Thr Gly Asp Thr Glu Gln Pro Ile His Ile Glu Ser Asp
 35 40 45
 Thr Gln Ser Leu Asp Met Gln Gly Asn Val Val Thr Phe Thr Gly Asn
 50 55 60
 Val Val Val Thr Gln Gly Thr Ile Lys Ile Asn Ala Asp Lys Val Val
 65 70 75 80
 Val Thr Arg Pro Gly Gly Glu Gln Gly Lys Glu Ile Ile Asp Gly Tyr
 85 90 95
 Gly Asn Pro Ala Thr Phe Tyr Gln Met Gln Asp Asn Gly Lys Pro Val
 100 105 110
 Lys Gly His Ala Ser His Met His Tyr Glu Leu Ala Lys Asp Leu Val
 115 120 125
 Ile Leu Thr Gly Asn Val Tyr Leu Glu Gln Leu Asp Ser Asn Ile Lys
 130 135 140
 Gly Asp Lys Ile Thr Tyr Leu Val Lys Glu Gln Lys Met Gln Ala Ser
 145 150 155 160
 Ser Glu Lys Gly Lys Arg Val Thr Thr Val Leu Val Pro Ser Gln Leu
 165 170 175
 Gln Asp Lys Asn Asn Gly Gln Ala Pro Ala Lys Lys Lys Ser Asn
 180 185 190

<210> 7334

<211> 244

<212> PRT

<213> Enterobacter cloacae

<400> 7334

Phe Val Met Ala Thr Leu Thr Ala Lys Asn Leu Ala Lys Ala Tyr Lys
 1 5 10 15
 Gly Arg Arg Val Val Glu Asp Val Ser Leu Thr Val Asn Ser Gly Glu
 20 25 30
 Ile Val Gly Leu Leu Gly Pro Asn Gly Ala Gly Lys Thr Thr Phe
 35 40 45
 Tyr Met Val Val Gly Ile Val Pro Arg Asp Ala Gly Asn Ile Ile Ile
 50 55 60
 Asp Asp Glu Asp Ile Ser Leu Leu Pro Leu His Ala Arg Ala Arg Arg
 65 70 75 80
 Gly Ile Gly Tyr Leu Pro Gln Glu Ala Ser Ile Phe Arg Arg Leu Ser
 85 90 95
 Val Phe Asp Asn Leu Met Ala Val Leu Gln Ile Arg Asp Asp Leu Thr
 100 105 110
 Ser Glu Gln Arg Thr Asp Arg Ala Asn Glu Leu Met Glu Glu Phe His
 115 120 125
 Ile Glu His Leu Arg Asp Ser Leu Gly Gln Ala Leu Ser Gly Gly Glu
 130 135 140
 Arg Arg Arg Val Glu Ile Ala Arg Ala Leu Ala Ala Asn Pro Lys Phe
 145 150 155 160
 Ile Leu Leu Asp Glu Pro Phe Ala Gly Val Asp Pro Ile Ser Val Ile
 165 170 175
 Asp Ile Lys Arg Ile Ile Glu His Leu Arg Asp Ser Gly Leu Gly Val
 180 185 190
 Leu Ile Thr Asp His Asn Val Arg Glu Thr Leu Ala Val Cys Glu Arg
 195 200 205
 Ala Tyr Ile Val Ser Gln Gly His Leu Ile Ala His Gly Thr Pro Gln
 210 215 220
 Gln Ile Leu Glu Asp Glu His Val Lys Arg Val Tyr Leu Gly Glu Asp
 225 230 235 240
 Phe Arg Leu

<210> 7335

<211> 139
 <212> PRT
 <213> Enterobacter cloacae

<400> 7335

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Cys | Cys | Pro | Ile | Arg | Val | Leu | Trp | Trp | His | Val | Val | Leu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ser | Ile | Glu | Ser | Leu | Tyr | Pro | Phe | Arg | Arg | Leu | Thr | Ser | Val | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Trp | Phe | Asp | Thr | Thr | Asp | Lys | Glu | Asp | Thr | Met | Gln | Leu | Asn | Ile |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Thr | Gly | His | Asn | Val | Glu | Ile | Thr | Glu | Ala | Leu | Arg | Asp | Phe | Val | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Lys | Phe | Ala | Lys | Leu | Glu | Gln | Tyr | Phe | Glu | Arg | Ile | Asn | Gln | Val |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Tyr | Val | Val | Leu | Lys | Val | Glu | Lys | Val | Thr | His | Ile | Ser | Asp | Ala | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | His | Val | Asn | Gly | Gly | Glu | Leu | His | Ala | Ser | Ala | Glu | Gly | Gln | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Tyr | Ala | Ala | Ile | Asp | Gly | Leu | Ile | Asp | Lys | Leu | Ala | Arg | Gln | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Lys | His | Lys | Asp | Lys | Leu | Lys | Gln | His | | | | | | |
| | 130 | | | | | 135 | | | | | | | | | |

<210> 7336
 <211> 124
 <212> PRT
 <213> Enterobacter cloacae

<400> 7336

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ser | Phe | Gly | Leu | His | Cys | Arg | Thr | Ala | Gly | Arg | Leu | Leu | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Arg | Lys | Glu | Arg | Ser | Val | Pro | Ser | Ser | His | Ala | Gly | Lys | Thr | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Met | Thr | Val | Lys | Gln | Thr | Val | Glu | Ile | Thr | Asn | Lys | Leu | Gly | Met |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| His | Ala | Arg | Pro | Ala | Met | Lys | Leu | Phe | Glu | Leu | Met | Gln | Gly | Phe | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Glu | Val | Leu | Leu | Arg | Asn | Asp | Glu | Gly | Thr | Glu | Ala | Glu | Ala | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Val | Ile | Ala | Leu | Leu | Met | Leu | Asp | Ser | Ala | Lys | Gly | Arg | Gln | Ile |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Glu | Val | Glu | Ala | Thr | Gly | Pro | Gln | Glu | Glu | Glu | Ala | Leu | Ala | Ala | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Ala | Leu | Phe | Asn | Ala | Gly | Phe | Asp | Glu | Asp | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 7337
 <211> 297
 <212> PRT
 <213> Enterobacter cloacae

<400> 7337

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Trp | Pro | Arg | Ile | Arg | Pro | Ala | Pro | Trp | Val | Lys | Thr | Gly | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Lys | Arg | Ile | Arg | Pro | Met | Ile | Ala | Ile | Leu | Ala | Ala | Arg | Ala | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Tyr | Gln | Gly | Asn | Ala | His | Val | Thr | Ile | Ala | Ala | Leu | Ile | Glu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | His | Thr | Ala | Thr | Leu | Leu | His | Asp | Asp | Val | Val | Asp | Glu | Ser | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |


```

Met Arg Arg Gly Lys Ala Thr Ala Asn Ala Ala Phe Gly Asn Ala Ala
65      70      75      80
Ser Val Leu Val Gly Asp Phe Ile Tyr Thr Arg Ala Phe Gln Met Met
      85      90      95
Thr Ser Leu Gly Ser Leu Lys Val Leu Glu Val Met Ser Glu Ala Val
      100      105      110
Asn Val Ile Ala Glu Gly Glu Val Leu Gln Leu Met Asn Val Asn Asp
      115      120      125
Pro Asp Ile Thr Glu Glu Asn Tyr Met Arg Val Ile Tyr Ser Lys Thr
      130      135      140
Ala Arg Leu Phe Glu Ala Ala Ala Gln Cys Ser Gly Ile Leu Ala Gly
145      150      155      160
Cys Ser Glu Ala Glu Lys Gly Leu Gln Asp Tyr Gly Arg Tyr Leu
      165      170      175
Gly Thr Ala Phe Gln Leu Ile Asp Asp Leu Leu Asp Tyr Ser Ala Asp
      180      185      190
Gly Glu Thr Leu Gly Lys Asn Val Gly Asp Asp Leu Asn Glu Gly Lys
      195      200      205
Pro Thr Leu Pro Leu Leu His Ala Met Arg Asn Gly Thr Pro Glu Gln
      210      215      220
Ala Lys Met Ile Arg Glu Ala Ile Glu Gln Gly Asn Gly Arg His Leu
225      230      235      240
Leu Glu Pro Val Leu Glu Thr Met Ala Ile Cys Gly Ser Leu Glu Trp
      245      250      255
Thr Arg Gln Arg Ala Glu Glu Glu Ala Asp Lys Ala Ile Ala Ala Ile
      260      265      270
Gln Val Ile Pro Asp Ser Pro Trp Arg Asp Ala Leu Ile Gly Leu Ala
      275      280      285
His Ile Ala Val Gln Arg Asp Arg
      290      295

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<210> 7338

<211> 114

<212> PRT

<213> Enterobacter cloacae

<400> 7338

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Cys Cys Leu Phe Thr Arg Asn Asp Val Asp Asp Asn Glu His Lys Asp
1      5      10      15
Ser Ile Met Asp Thr Lys Phe Ile Asp Trp His Ser Ala Asp Ile Ile
      20      25      30
Ala Ala Leu Arg Lys Lys Gly Thr Ser Leu Ala Ala Glu Ser Arg Arg
      35      40      45
His Gly Leu Ser Ser Ser Thr Leu Ala Asn Ala Leu Thr Arg Pro Trp
      50      55      60
Pro Lys Gly Glu Leu Ile Ile Ala Thr Ala Leu Asp Thr His Pro Trp
65      70      75      80
Val Ile Trp Pro Ser Arg Tyr His Asp Pro Ile Thr His Glu Phe Ile
      85      90      95
Asp Arg Thr Arg Met Met Arg Gln Ser Lys Thr Lys Lys Ala His Gln
      100      105      110
Asp

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<210> 7339

<211> 354

<212> PRT

<213> Enterobacter cloacae

<400> 7339

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Arg Val Asp Leu Ser Tyr Gly Trp Arg Cys Cys Thr Gly Ser Arg His

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<210> 7340
<211> 169
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Leu | Gly | Glu | Ile | Met | Ile | Asn | Asn | Asp | Ser | Ala | Leu | Gln | Leu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Val | Leu | Asn | Gln | Asp | Cys | Thr | Arg | Ser | Gly | Val | His | Cys | Gln | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Lys | Arg | Ala | Leu | Glu | Ile | Ile | Ser | Glu | Leu | Ala | Ala | Lys | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Leu | Pro | Pro | Gln | Ile | Val | Phe | Glu | Ala | Ile | Leu | Thr | Arg | Glu | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Gly | Ser | Thr | Gly | Ile | Gly | Asn | Gly | Ile | Ala | Ile | Pro | His | Gly | Lys |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Glu | Glu | Asp | Thr | Leu | Arg | Ala | Val | Gly | Val | Phe | Val | Gln | Leu | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Pro | Ile | Ala | Phe | Asp | Ala | Ile | Asp | Asn | Gln | Pro | Val | Asp | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ala | Leu | Leu | Val | Pro | Ala | Asp | Gln | Thr | Lys | Thr | His | Leu | His | Thr |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Leu | Ser | Leu | Val | Ala | Lys | Arg | Leu | Ala | Asp | Lys | Thr | Ile | Cys | Arg | Arg |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Leu | Arg | Ser | Ala | Gln | Ser | Asp | Glu | Glu | Leu | Tyr | Gln | Ile | Ile | Thr | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Glu | Gly | Asn | Gln | Asp | Glu | Ala | | | | | | | | |
| | | | | 165 | | | | | | | | | | | |

<210> 7341

<211> 300

<212> PRT

<213> Enterobacter cloacae

<400> 7341

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Lys | Gly | Leu | Gln | Asn | Gly | Cys | Pro | Glu | Glu | Lys | Arg | Asn | Met |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Val | Leu | Met | Ile | Val | Ser | Gly | Arg | Ser | Gly | Ser | Gly | Lys | Ser | Val | Ala |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Leu | Arg | Ala | Leu | Glu | Asp | Met | Gly | Phe | Tyr | Cys | Val | Asp | Asn | Leu | Pro |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Val | Val | Leu | Leu | Pro | Asp | Leu | Ala | Arg | Thr | Leu | Ala | Asp | Arg | Gln | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Ala | Val | Ser | Ile | Asp | Val | Arg | Asn | Met | Pro | Glu | Ser | Pro | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Phe | Glu | Gln | Ala | Met | Asn | Ser | Leu | Pro | Glu | Cys | Phe | Ser | Pro | Gln |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Leu | Phe | Leu | Asp | Ala | Asp | Arg | Asn | Thr | Leu | Ile | Arg | Arg | Tyr | Ser |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Asp | Thr | Arg | Arg | Leu | His | Pro | Leu | Ser | Ser | Lys | Asn | Leu | Ser | Leu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Ile | Asp | Lys | Glu | Ser | Asp | Leu | Leu | Glu | Pro | Leu | Arg | Ser | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Asp | Leu | Ile | Val | Asp | Thr | Ser | Glu | Met | Ser | Val | His | Glu | Leu | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Met | Leu | Arg | Thr | Arg | Leu | Leu | Gly | Lys | Arg | Glu | Arg | Glu | Leu | Thr |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Met | Val | Phe | Glu | Ser | Phe | Gly | Phe | Lys | His | Gly | Ile | Pro | Ile | Asp | Ala |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Asp | Tyr | Val | Phe | Asp | Val | Arg | Phe | Leu | Pro | Asn | Pro | His | Trp | Asp | Pro |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Lys | Leu | Arg | Pro | Met | Thr | Gly | Leu | Asp | Lys | Pro | Val | Ala | Ala | Phe | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Arg | His | Thr | Glu | Val | His | Asn | Phe | Ile | Tyr | Gln | Thr | Arg | Ser | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Glu | Leu | Trp | Leu | Pro | Met | Leu | Glu | Thr | Asn | Asn | Arg | Ser | Tyr | Leu |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Thr | Val | Ala | Ile | Gly | Cys | Thr | Gly | Gly | Lys | His | Arg | Ser | Val | Tyr | Ile |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ala | Glu | Gln | Leu | Ala | Asp | Tyr | Phe | Arg | Ser | Arg | Gly | Lys | Asn | Val | Gln |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Arg | His | Arg | Thr | Leu | Glu | Lys | Arg | Lys | Thr | | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | |

<210> 7342

<211> 198

<213> Enterobacter cloacae

[illegible]

<211> 491

<213> Enterobacter cloacae

| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|-----|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-----|
| Arg 1 | Leu | Ser | His | Ala 5 | Glu | Pro | Glu | Lys | Asn 10 | Ala | Leu | Asn | Met | Lys 15 | Gln |
| Gly | Leu | Gln | Leu | Arg 20 | Leu | Ser | Gln | Gln 25 | Leu | Ala | Met | Thr | Pro 30 | Gln | Leu |
| Gln | Gln | Ala 35 | Ile | Arg | Leu | Leu | Gln 40 | Leu | Ser | Thr | Leu | Glu 45 | Leu | Gln | Gln |
| Glu | Leu 50 | Gln | Gln | Ala | Leu | Asp 55 | Ser | Asn | Pro | Leu | Leu 60 | Glu | Gln | Thr | Asp |
| Leu 65 | His | Asp | Glu | Val 70 | Asp | Ala | Gln | Gln | Thr | Gln 75 | Asp | Thr | Glu | Thr | Leu |
| Asp | Ser | Val | Asp | Ala 85 | Leu | Glu | Gln | Lys | Glu 90 | Met | Pro | Asp | Glu 95 | Leu | Pro |
| Leu | Asp | Ala | Ser 100 | Trp | Asp | Glu | Ile | Tyr 105 | Thr | Ala | Gly | Thr | Pro 110 | Ser | Gly |
| Thr | Arg | Ala 115 | Asp | Tyr | Gln | Asp | Asp 120 | Glu | Leu | Pro | Val | Tyr 125 | Gln | Gly | Glu |
| Thr | Thr 130 | Gln | Ser | Leu | Gln | Asp 135 | Tyr | Leu | Met | Trp | Gln 140 | Val | Glu | Leu | Thr |
| Pro 145 | Phe | Ser | Asp | Thr 150 | Asp | Arg | Ala | Ile | Ala 155 | Thr | Ser | Ile | Val | Asp | Ala |
| Val | Asp | Asp | Thr | Gly 165 | Tyr | Leu | Thr | Val | Thr 170 | Leu | Asp | Glu | Ile | Leu 175 | Glu |
| Ser | Ile | Gly | Asp 180 | Glu | Ile | Glu | Leu 185 | Glu | Glu | Ile | Glu | Ala 190 | Val | Leu | |

Lys Arg Val Gln Arg Phe Asp Pro Ile Gly Val Ala Ala Lys Asp Leu
 195 200 205
 Arg Asp Cys Leu Leu Ile Gln Leu Ser Gln Phe Ala Lys Glu Thr Pro
 210 215 220
 Trp Ile Asp Glu Ala Arg Leu Ile Ile Ser Asp His Leu Asp Leu Leu
 225 230 235 240
 Ala Asn His Asp Phe Arg Thr Leu Met Arg Val Thr Arg Leu Lys Glu
 245 250 255
 Glu Val Leu Lys Glu Ala Val Asn Leu Ile Gln Ser Leu Asp Pro Arg
 260 265 270
 Pro Gly Gln Ser Ile Gln Thr Ser Glu Pro Glu Tyr Val Ile Pro Asp
 275 280 285
 Val Leu Val Arg Lys His Asn Gly Arg Trp Val Val Glu Leu Asn Ala
 290 295 300
 Asp Ser Ile Pro Arg Leu Gln Ile Asn Gln Gln Tyr Ala Ser Met Cys
 305 310 315 320
 Thr Ser Ala Arg Asn Asp Ala Asp Asn Gln Tyr Ile Arg Ser Asn Leu
 325 330 335
 Gln Glu Ala Arg Trp Leu Ile Lys Ser Leu Glu Ser Arg Asn Asp Thr
 340 345 350
 Leu Leu Arg Val Ser Arg Cys Ile Val Glu Gln Gln Ala Phe Phe
 355 360 365
 Glu Gln Gly Glu Glu Phe Met Lys Pro Met Val Leu Ala Asp Ile Ala
 370 375 380
 Gln Ala Val Glu Met His Glu Ser Thr Ile Ser Arg Val Thr Thr Gln
 385 390 395 400
 Lys Tyr Leu His Ser Pro Arg Gly Ile Phe Glu Leu Lys Tyr Phe Phe
 405 410 415
 Ser Ser His Val Asn Thr Glu Gly Gly Gly Glu Ala Ser Ser Thr Ala
 420 425 430
 Ile Arg Ala Leu Val Lys Lys Leu Ile Ala Ala Glu Asn Pro Ala Lys
 435 440 445
 Pro Leu Ser Asp Ser Lys Leu Thr Thr Met Leu Ser Asp Gln Gly Ile
 450 455 460
 Met Val Ala Arg Arg Thr Val Ala Lys Tyr Arg Glu Ser Leu Ser Ile
 465 470 475 480
 Pro Pro Ser Asn Gln Arg Lys Gln Leu Val
 485 490

<210> 7344

<211> 277

<212> PRT

<213> Enterobacter cloacae

<400> 7344

Ile Asp Leu Ser Ala Asp Ser Gly Ser Ser Leu Met Lys Thr Pro Val
 1 5 10 15
 Met Gln Val Ala Leu Ser Val Met Lys Thr Ala Ile Pro Leu Val Leu
 20 25 30
 Leu Thr Met Ala Ile Gly Glu Trp Val Ala Pro Gln Gly Glu Gln Met
 35 40 45
 Ala Arg Asn Tyr Arg Ala Gln Ala Met Tyr Gly Gly Ser Leu Leu Ser
 50 55 60
 Thr Gln Gln Gly Leu Trp Ala Lys Asp Gly Gln Asn Phe Val Tyr Ile
 65 70 75 80
 Glu Arg Val Lys Gly Asp Asp Glu Leu Gly Gly Val Ser Ile Tyr Ala
 85 90 95
 Phe Asn Asn Asp Arg Arg Leu Gln Ser Val Arg Tyr Ala Ala Ser Ala
 100 105 110
 Lys Phe Asp Ala Asn Asn Lys Leu Trp Arg Leu Ser Gln Val Asp Glu
 115 120 125

Ser Asp Leu Thr Asn Pro Lys Gln Ile Thr Gly Ser Gln Thr Val Ser
 130 135 140
 Gly Thr Trp Lys Thr Asn Leu Thr Pro Asp Lys Leu Gly Val Val Ala
 145 150 155 160
 Leu Asp Pro Asp Ala Leu Ser Ile Ser Gly Leu His Asn Tyr Val Lys
 165 170 175
 Tyr Leu Lys Ser Ser Gly Gln Asp Ala Gly Arg Tyr Gln Leu Asn Met
 180 185 190
 Trp Ser Lys Ile Phe Gln Pro Leu Ser Val Ala Val Met Met Leu Met
 195 200 205
 Ala Leu Ser Phe Ile Phe Gly Pro Leu Arg Ser Val Pro Met Gly Val
 210 215 220
 Arg Val Val Thr Gly Ile Ser Phe Gly Phe Val Phe Tyr Val Leu Asp
 225 230 235 240
 Gln Ile Phe Gly Pro Leu Thr Leu Val Tyr Gly Ile Pro Pro Ile Ile
 245 250 255
 Gly Ala Leu Leu Pro Ser Ala Ser Phe Phe Leu Ile Ser Leu Trp Met
 260 265 270
 Leu Leu Lys Arg Ser
 275

<210> 7345

<211> 167

<212> PRT

<213> Enterobacter cloacae

<400> 7345

Lys Ile Lys Lys Ser Thr Ser Arg Pro Glu Trp Thr Met Cys Ser Ala
 1 5 10 15
 Ser Arg Trp Arg Tyr Leu Pro Leu Thr Ala Met Ile Lys Lys Phe Trp
 20 25 30
 Asp Thr Cys Asp Glu Glu Glu Ser Thr Met Thr Ser Val Asp Ser Ala
 35 40 45
 Lys Ala Gln Thr Ile Leu Asp Thr Ala Met Leu Glu Gln Tyr Ile Asp
 50 55 60
 Leu Val Gly Pro Lys Leu Ile Thr Asp Gly Leu Ala Val Phe Glu Lys
 65 70 75 80
 Met Met Pro Gly Tyr Leu Asn Val Leu Glu Ser Asn Leu Thr Ala Arg
 85 90 95
 Asp Gln Lys Gly Ile Val Glu Glu Gly His Lys Ile Lys Gly Ala Ala
 100 105 110
 Gly Ser Val Gly Leu Arg His Leu Gln Gln Leu Gly Gln Gln Ile Gln
 115 120 125
 Ser Pro Asp Leu Pro Ala Trp Glu Asp Asn Val Gly Asp Trp Val Glu
 130 135 140
 Glu Met Lys Gln Glu Trp Gln Asn Asp Val Ala Val Leu Lys Ala Trp
 145 150 155 160
 Val Asp Ala Arg Lys Lys
 165

<210> 7346

<211> 253

<212> PRT

<213> Enterobacter cloacae

<400> 7346

Lys Ala Gly Gly Gln Ser Ala Gly Ser Tyr Arg Met Ser Arg Lys Leu
 1 5 10 15
 Ser Pro Gly Gly Trp Leu Lys Arg Ile Leu Leu Arg Ile Val Leu Val
 20 25 30
 Leu Ala Val Phe Trp Gly Gly Gly Ile Ala Leu Phe Ser Ile Leu Pro

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Pro | 35 | Phe | Ser | Ala | Val | Met | 40 | Ala | Glu | Arg | Gln | Ile | 45 | Ser | Ala | Trp | Leu |
| | 50 | | | | | | 55 | | | | | | 60 | | | | | |
| Ser | Gly | Asp | Phe | Gly | Tyr | Val | Ala | His | Ser | Asp | Trp | Val | Gly | Met | Asp | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Glu | Ile | Ser | Pro | Trp | Met | Gly | Leu | Ala | Val | Ile | Ala | Ala | Glu | Asp | Gln | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Lys | Phe | Pro | Glu | His | Trp | Gly | Phe | Asp | Val | Ala | Ala | Ile | Glu | Lys | Ala | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Leu | Asp | His | Asn | Glu | Arg | His | Glu | Asn | Arg | Val | Arg | Gly | Ala | Ser | Thr | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | |
| Leu | Ser | Gln | Gln | Thr | Val | Lys | Asn | Leu | Phe | Leu | Trp | Asp | Gly | Arg | Ser | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | |
| Trp | Val | Arg | Lys | Gly | Leu | Glu | Ala | Gly | Leu | Thr | Leu | Gly | Val | Glu | Thr | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Val | Trp | Ser | Lys | Lys | Arg | Ile | Leu | Thr | Val | Tyr | Leu | Asn | Ile | Ala | Glu | | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Phe | Gly | Asp | Gly | Val | Phe | Gly | Val | Glu | Ala | Ala | Ser | Gln | Arg | Tyr | Phe | | | |
| | | 180 | | | | | | 185 | | | | | 190 | | | | | |
| Gly | Lys | Pro | Ala | Ser | Arg | Leu | Thr | Met | Ser | Glu | Ala | Ala | Leu | Leu | Ala | | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | | |
| Ala | Val | Leu | Pro | Asn | Pro | Leu | Arg | Phe | Lys | Ala | Ser | Thr | Pro | Ser | Gly | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | |
| Tyr | Val | Arg | Ser | Arg | Gln | Ala | Trp | Ile | Met | Arg | Gln | Met | Arg | Gln | Leu | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Gly | Gly | Glu | Gly | Phe | Met | Glu | Arg | Asn | Asn | Leu | Met | | | | | | | |
| | | | | 245 | | | | | 250 | | | | | | | | | |

<210> 7347

<211> 266

<212> PRT

<213> Enterobacter cloacae

<400> 7347

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Lys | Pro | Leu | Met | Leu | Leu | Asn | Ala | Leu | Ala | Gly | Leu | Gly | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gly | Leu | Lys | Thr | Ile | Ser | Thr | Phe | Gly | Arg | Ala | Gly | Leu | Met | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Phe | Asn | Ala | Leu | Val | Gly | Lys | Pro | Glu | Phe | Arg | Lys | His | Ala | Pro | Leu |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Leu | Val | Arg | Gln | Leu | Tyr | Asn | Val | Gly | Val | Leu | Ser | Met | Leu | Ile | Ile |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ile | Val | Ser | Gly | Leu | Phe | Ile | Gly | Met | Val | Leu | Gly | Leu | Gln | Gly | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Val | Leu | Thr | Thr | Tyr | Ser | Ala | Glu | Thr | Ser | Leu | Gly | Met | Leu | Val |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ala | Leu | Ser | Leu | Leu | Arg | Glu | Leu | Gly | Pro | Val | Val | Ala | Ala | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ala | Gly | Arg | Ala | Gly | Ser | Ala | Leu | Thr | Ala | Glu | Ile | Gly | Leu | Met |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Arg | Ala | Thr | Glu | Gln | Leu | Ser | Ser | Met | Glu | Met | Met | Ala | Val | Asp | Pro |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Leu | Arg | Arg | Val | Ile | Ser | Pro | Arg | Phe | Trp | Ala | Gly | Val | Ile | Ser | Leu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Pro | Leu | Leu | Thr | Ile | Leu | Phe | Val | Ala | Val | Gly | Ile | Trp | Gly | Gly | Ala |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Leu | Val | Gly | Val | Asn | Trp | Lys | Gly | Ile | Asp | Ala | Gly | Phe | Phe | Trp | Ser |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Ala | Met | Gln | Asp | Ala | Ile | Asp | Leu | Arg | Met | Asp | Leu | Val | Asn | Cys | Leu |
| | 195 | | | | | 200 | | | | | 205 | | | | |
| Ile | Lys | Ser | Val | Val | Phe | Ala | Val | Thr | Val | Thr | Trp | Ile | Ala | Leu | Phe |

| | | | | |
|-------------------------------------|---|-----|--|-----|
| 210 | | 215 | | 220 |
| Asn Gly Tyr Asp Ala Ile | Pro Thr Ser Ala Gly Ile Ser Arg Ala Thr | | | |
| 225 | 230 | 235 | | 240 |
| Thr Arg Thr Val Val His Ser Ser Leu | Ala Val Leu Gly Leu Asp Phe | | | |
| | 245 | 250 | | 255 |
| Val Leu Thr Ala Leu Met Phe Gly Asn | | | | |
| | 260 | 265 | | |

<210> 7348
 <211> 119
 <212> PRT
 <213> Enterobacter cloacae

<400> 7348

| | |
|---|-------------|
| Trp Pro Asp Gly Ser Ala Ser Val His Leu Ser Ser Glu Asn Tyr Pro | |
| 1 | 5 10 15 |
| Gly Arg Glu Glu Val Met Ser Gln Gln Leu Ser Trp Ala Arg Asp Gly | |
| | 20 25 30 |
| Glu Thr Leu Thr Leu Thr Gly Glu Leu Asp Gln Asp Leu Leu Asn Pro | |
| | 35 40 45 |
| Leu Trp Asp Ala Arg His Asn Ala Met Gln Gly Val Thr Leu Ile Asp | |
| | 50 55 60 |
| Leu His Gly Val Thr Arg Val Asp Thr Ala Gly Ile Ala Leu Leu Ala | |
| 65 | 70 75 80 |
| His Leu Val Ala Thr Gly Lys Lys Gln Gly Ser Ser Val Thr Leu Thr | |
| | 85 90 95 |
| Gly Val Ser Asp Asn Val Ile Thr Leu Ala Gln Leu Tyr Asn Leu Pro | |
| | 100 105 110 |
| Glu Asp Val Leu Pro Arg | |
| | 115 |

<210> 7349
 <211> 127
 <212> PRT
 <213> Enterobacter cloacae

<400> 7349

| | |
|---|-------------|
| Phe Phe Gln Tyr Val Thr Ser Glu Ser Pro Asp Ser Leu Arg Val Gly | |
| 1 | 5 10 15 |
| Ala Phe Cys Leu Phe Lys Thr Ala Pro Leu Cys Ser Lys Met Leu Ser | |
| | 20 25 30 |
| Leu Phe Ser Leu Ser Asp Asp Val Asp Pro Met Glu Asn Asn Glu Ile | |
| | 35 40 45 |
| Gln Thr Val Leu Met Asn Ala Leu Ser Leu Gln Glu Ala His Val Ser | |
| | 50 55 60 |
| Gly Asp Gly Ser His Phe Gln Val Ile Ala Val Gly Glu Met Phe Asp | |
| 65 | 70 75 80 |
| Gly Met Ser Arg Val Lys Lys Gln Gln Ala Val Tyr Ala Pro Leu Met | |
| | 85 90 95 |
| Glu Tyr Ile Ala Asp Asn Arg Ile His Ala Leu Ser Ile Lys Ala Phe | |
| | 100 105 110 |
| Thr Pro Gln Glu Trp Ala Arg Asp Arg Lys Leu Asn Gly Phe | |
| | 115 120 125 |

<210> 7350
 <211> 234
 <212> PRT
 <213> Enterobacter cloacae

<400> 7350

| |
|---|
| Ser Glu Phe Leu Met Cys Phe Ser Glu Leu Leu Arg Arg Ile Val Arg |
|---|

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 1 | | | | 5 | | | | 10 | | | | 15 | | | | |
| Met | Lys | Lys | Val | Gly | Val | Val | Leu | Ser | Gly | Cys | Gly | Val | Tyr | Asp | Gly | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ser | Glu | Ile | His | Glu | Thr | Val | Leu | Thr | Leu | Leu | Ala | Leu | Ser | Arg | Gln | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Gly | Ala | Asp | Val | Ile | Cys | Phe | Ala | Pro | Asp | Lys | Thr | Gln | Ala | Asp | Val | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Met | Asn | His | Leu | Thr | Gly | Glu | Pro | Met | Ala | Glu | Ser | Arg | Asn | Val | Leu | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | |
| Ile | Glu | Ala | Ala | Arg | Ile | Val | Arg | Gly | Asp | Ile | His | Pro | Leu | Ala | Gln | |
| | | | | 85 | | | | 90 | | | | | | 95 | | |
| Ala | Asp | Ala | Ala | Glu | Leu | Asp | Ala | Leu | Ile | Val | Pro | Gly | Gly | Phe | Gly | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ala | Ala | Lys | Asn | Leu | Ser | Thr | Phe | Ala | Thr | Glu | Gly | Ala | Ala | Cys | His | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | Asp | Pro | Asp | Leu | Lys | Ala | Leu | Ser | Leu | Ala | Met | His | Ala | Ala | Gly | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Lys | Pro | Gln | Gly | Phe | Ile | Cys | Ile | Ala | Pro | Ala | Met | Leu | Pro | Lys | Ile | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Phe | Asp | Phe | Pro | Leu | Arg | Leu | Thr | Ile | Gly | Thr | Asp | Ile | Asp | Thr | Ala | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Glu | Ile | Ile | Glu | Asp | Met | Gly | Gly | Glu | His | Val | Pro | Cys | Pro | Val | Asp | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Asp | Ile | Val | Val | Asp | Glu | Asp | Asn | Lys | Ile | Ile | Thr | Thr | Pro | Ala | Tyr | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Met | Leu | Ala | Gln | Asn | Ile | Ala | Glu | Ala | Ala | Ala | Gly | Ile | Glu | Lys | Leu | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Val | Asp | Arg | Val | Leu | Val | Leu | Thr | Glu | | | | | | | | |
| 225 | | | | | 230 | | | | | | | | | | | |

<210> 7351

<211> 189

<212> PRT

<213> Enterobacter cloacae

<400> 7351

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Cys | Leu | Gly | Ile | Glu | Phe | Met | Gln | Thr | Arg | Lys | Asn | Glu | Ile | Trp | Val | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Gly | Val | Phe | Leu | Leu | Ala | Leu | Leu | Ala | Ala | Leu | Phe | Ile | Cys | Leu | | |
| | | | 20 | | | | | 25 | | | | 30 | | | | |
| Arg | Ala | Ala | Asp | Ile | Thr | Ser | Val | Arg | Ala | Glu | Pro | Thr | Tyr | Arg | Ile | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Tyr | Ala | Thr | Phe | Asp | Asn | Ile | Gly | Gly | Leu | Lys | Ala | Arg | Ser | Pro | Val | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Arg | Ile | Gly | Gly | Val | Val | Ile | Gly | Arg | Val | Ala | Asp | Ile | Thr | Leu | Asp | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | |
| Glu | Lys | Thr | Tyr | Leu | Pro | Arg | Val | Ala | Met | Asp | Ile | Glu | Glu | Arg | Tyr | |
| | | | | 85 | | | | 90 | | | | | | 95 | | |
| Asn | His | Ile | Pro | Asp | Thr | Ser | Ser | Leu | Ser | Ile | Arg | Thr | Ser | Gly | Leu | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Leu | Gly | Glu | Gln | Tyr | Leu | Ala | Leu | Asn | Val | Gly | Phe | Glu | Asp | Pro | Glu | |
| | | 115 | | | | | | 120 | | | | 125 | | | | |
| Leu | Gly | Thr | Thr | Ile | Leu | Lys | Asp | Gly | Ser | Val | Ile | Gln | Asp | Thr | Lys | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ser | Ala | Met | Val | Leu | Glu | Asp | Met | Ile | Gly | Gln | Phe | Leu | Tyr | Asn | Ser | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Lys | Gly | Asp | Asp | Lys | Lys | Ser | Asp | Asp | Ala | Pro | Ala | Gln | Ser | Glu | Asp | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| His | Thr | Asn | Val | Glu | Pro | Thr | Pro | Gly | Ala | Thr | Asn | | | | | |
| | | | 180 | | | | | 185 | | | | | | | | |

<210> 7352
 <211> 218
 <212> PRT
 <213> Enterobacter cloacae

<400> 7352
 Phe Gln Glu Lys Leu Phe Met Phe Lys Arg Leu Leu Met Val Ala Met
 1 5 10 15
 Leu Val Ile Ala Pro Leu Thr Ala Ala His Ala Ala Asp Gln Ser Asn
 20 25 30
 Pro Tyr Lys Leu Met Asn Glu Ala Ala Lys Lys Thr Phe Asp Arg Leu
 35 40 45
 Lys Asn Glu Gln Pro Lys Ile Arg Ser Asn Pro Asp Tyr Leu Arg Asp
 50 55 60
 Val Val Asp Gln Glu Leu Leu Pro Tyr Val Gln Ile Lys Tyr Ala Gly
 65 70 75 80
 Ala Leu Val Leu Gly Arg Tyr Tyr Lys Asp Ala Thr Pro Ala Gln Arg
 85 90 95
 Glu Ala Tyr Phe Ala Ala Phe Arg Glu Tyr Leu Lys Gln Ala Tyr Gly
 100 105 110
 Gln Ala Leu Ala Met Tyr His Gly Gln Thr Tyr Gln Ile Ala Pro Glu
 115 120 125
 Gln Pro Leu Gly Asp Ala Thr Ile Ile Pro Ile Arg Val Thr Ile Ile
 130 135 140
 Asp Pro Asn Gly Arg Pro Pro Val Arg Leu Asp Phe Gln Trp Arg Lys
 145 150 155 160
 Asn Ser Gln Thr Gly Asn Trp Gln Ala Tyr Asp Met Ile Ala Glu Gly
 165 170 175
 Val Ser Met Ile Thr Thr Lys Gln Asn Glu Trp Ser Asp Leu Leu Arg
 180 185 190
 Thr Lys Gly Ile Asp Gly Leu Thr Ala Gln Leu Gln Ser Ile Ser Arg
 195 200 205
 Gln Lys Ile Thr Leu Asp Glu Lys Lys
 210 215

<210> 7353
 <211> 659
 <212> PRT
 <213> Enterobacter cloacae

<400> 7353
 Val Leu Leu Ser Asp Lys Val Val Lys Gly Ser Ser Met Lys Gln Ile
 1 5 10 15
 Arg Met Leu Ala Gln Tyr Tyr Val Asp Leu Met Met Lys Leu Gly Leu
 20 25 30
 Val Arg Phe Ser Met Leu Leu Ala Leu Ala Leu Val Val Leu Ala Ile
 35 40 45
 Val Val Gln Met Ala Val Thr Met Val Leu His Gly Gln Val Glu Ser
 50 55 60
 Ile Asp Val Ile Arg Ser Ile Phe Phe Gly Leu Leu Ile Thr Pro Trp
 65 70 75 80
 Ala Val Tyr Phe Leu Ser Val Val Val Glu Gln Leu Glu Glu Ser Arg
 85 90 95
 Gln Arg Leu Ser Lys Leu Val Asp Lys Leu Glu Glu Met Arg Glu Arg
 100 105 110
 Asp Leu Lys Leu Asn Val Gln Leu Lys Asp Asn Ile Ala Gln Leu Asn
 115 120 125
 Gln Glu Ile Ser Asp Arg Glu Lys Ala Glu Ala Glu Arg Gln Thr Thr
 130 135 140
 Leu Glu Gln Leu Lys Ile Glu Met Lys Glu Arg Glu Val Thr Gln Ile
 145 150 155 160

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Leu | Glu | Gln | Gln | Ser | Ser | Phe | Leu | Arg | Ser | Phe | Leu | Asp | Ala | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Asp | Leu | Val | Phe | Tyr | Arg | Asn | Glu | Asp | Lys | Glu | Phe | Ser | Gly | Cys |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Asn | Arg | Ala | Met | Glu | Leu | Leu | Thr | Gly | Lys | Ser | Glu | Lys | Gln | Leu | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| His | Leu | Lys | Pro | Gln | Asp | Val | Tyr | Ser | Glu | Glu | Ala | Ala | Ala | Lys | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Met | Glu | Thr | Asp | Glu | Lys | Val | Phe | Arg | His | Asn | Val | Ser | Leu | Thr | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Gln | Trp | Leu | Asp | Tyr | Pro | Asp | Gly | Arg | Lys | Ala | Cys | Phe | Glu | Ile |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Arg | Lys | Val | Pro | Tyr | Tyr | Asp | Arg | Val | Gly | Lys | Arg | His | Gly | Leu | Met |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Gly | Phe | Gly | Arg | Asp | Ile | Thr | Glu | Arg | Lys | Arg | Tyr | Gln | Asp | Ala | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Arg | Ala | Ser | Arg | Asp | Lys | Thr | Thr | Phe | Ile | Ser | Thr | Ile | Ser | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Glu | Leu | Arg | Thr | Pro | Leu | Asn | Gly | Ile | Val | Gly | Leu | Ser | Arg | Ile | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Asp | Thr | Glu | Leu | Thr | Ser | Glu | Gln | Glu | Lys | Tyr | Leu | Lys | Thr | Ile |
| | | | | 325 | | | | | 330 | | | | | | 335 |
| His | Val | Ser | Ala | Val | Thr | Leu | Gly | Asn | Ile | Phe | Asn | Asp | Ile | Ile | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Asp | Lys | Met | Glu | Arg | Arg | Lys | Val | Gln | Leu | Asp | Asn | Gln | Pro | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asp | Phe | Thr | Gly | Phe | Leu | Ala | Asp | Leu | Glu | Asn | Leu | Ser | Gly | Leu | Gln |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Gln | Gln | Lys | Gly | Leu | Ser | Phe | Val | Met | Glu | Pro | Thr | Leu | Pro | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | His | Lys | Val | Val | Thr | Asp | Gly | Thr | Arg | Leu | Arg | Gln | Ile | Leu | Trp |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Asn | Leu | Ile | Ser | Asn | Ala | Val | Lys | Phe | Thr | Gln | Lys | Gly | Gln | Val | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Val | Arg | Ile | Arg | Tyr | Asp | Glu | Gly | Asp | Met | Leu | His | Phe | Glu | Val | Glu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asp | Ser | Gly | Ile | Gly | Ile | Pro | Gln | Glu | Glu | Gln | Asp | Lys | Ile | Phe | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Met | Tyr | Tyr | Gln | Val | Lys | Asp | Ser | His | Gly | Gly | Lys | Pro | Ala | Thr | Gly |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Thr | Gly | Ile | Gly | Leu | Ala | Val | Ser | Lys | Arg | Leu | Ala | Lys | Ser | Met | Gly |
| | | | | 485 | | | | | 490 | | | | | | 495 |
| Gly | Asp | Ile | Thr | Val | Ala | Ser | Gln | Pro | Gly | Lys | Gly | Ser | Thr | Phe | Thr |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Leu | Thr | Val | His | Ala | Pro | Ala | Val | Ala | Glu | Glu | Val | Glu | Asp | Thr | Phe |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Glu | Asn | Asp | Asp | Met | Pro | Leu | Pro | Ala | Leu | His | Val | Leu | Leu | Val | Glu |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Asp | Ile | Glu | Leu | Asn | Val | Ile | Val | Ala | Arg | Ser | Val | Leu | Glu | Lys | Leu |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Gly | Asn | Ser | Val | Asp | Val | Ala | Met | Thr | Gly | Lys | Ala | Ala | Leu | Glu | Met |
| | | | | 565 | | | | | 570 | | | | | | 575 |
| Phe | Thr | Pro | Gly | Glu | Tyr | Asp | Leu | Val | Leu | Leu | Asp | Ile | Gln | Leu | Pro |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Asp | Met | Thr | Gly | Leu | Asp | Ile | Ser | Arg | Glu | Leu | Thr | Arg | Lys | Tyr | Ala |
| | 595 | | | | | | 600 | | | | | 605 | | | |
| Pro | Asp | Glu | Leu | Pro | Pro | Leu | Val | Ala | Leu | Thr | Ala | Asn | Val | Leu | Lys |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Asp | Lys | Lys | Glu | Tyr | Leu | Glu | Ala | Gly | Met | Asp | Asp | Val | Leu | Ser | Lys |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Pro | Leu | Ala | Val | Pro | Ala | Pro | Asp | Gly | Asp | Asp | Gln | Glu | Val | Leu | Gly |

645

650

655

Tyr Leu

<210> 7354

<211> 271

<212> PRT

<213> Enterobacter cloacae

<400> 7354

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Gln | Thr | Met | Ala | Asn | Ile | Val | Asp | Val | Arg | Gly | Val | Ser | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Arg | Gly | Asn | Arg | Leu | Ile | Phe | Asp | Asp | Ile | Ser | Leu | Thr | Val | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gly | Lys | Ile | Thr | Ala | Ile | Met | Gly | Pro | Ser | Gly | Ile | Gly | Lys | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Leu | Leu | Arg | Leu | Ile | Gly | Gly | Gln | Ile | Pro | Pro | Asp | Ser | Gly | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Leu | Phe | Asp | Gly | Glu | Asn | Val | Pro | Ala | Met | Ser | Arg | Ser | Arg | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Tyr | Thr | Val | Arg | Lys | Arg | Met | Ser | Met | Leu | Phe | Gln | Ser | Gly | Ala | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Thr | Asp | Met | Asn | Val | Phe | Asp | Asn | Val | Ala | Tyr | Pro | Leu | Arg | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Thr | His | Leu | Pro | Pro | Ala | Leu | Leu | His | Ser | Thr | Val | Met | Met | Lys |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Leu | Glu | Ala | Val | Gly | Leu | Arg | Gly | Ala | Ala | Lys | Leu | Met | Pro | Ser | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Ser | Gly | Gly | Met | Ala | Arg | Arg | Ala | Ala | Leu | Ala | Arg | Ala | Ile | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Glu | Pro | Asp | Leu | Ile | Met | Phe | Asp | Glu | Pro | Phe | Val | Gly | Gln | Asp |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Pro | Ile | Thr | Met | Gly | Val | Leu | Val | Lys | Leu | Ile | Ser | Glu | Leu | Asn | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Gly | Val | Thr | Cys | Val | Val | Val | Ser | His | Asp | Val | Pro | Glu | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Ser | Ile | Ala | Asp | Tyr | Ala | Tyr | Ile | Val | Ala | Asp | Lys | Lys | Ile | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | His | Gly | Ser | Ala | Gln | Ala | Leu | Gln | Glu | Asn | Gly | Asp | Pro | Arg | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Gln | Phe | Leu | Asp | Gly | Ile | Ala | Asp | Gly | Pro | Val | Pro | Phe | Arg | Tyr |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Pro | Ala | Gly | Asp | Tyr | His | Asp | Asp | Leu | Leu | Gly | Ile | Gly | Ser | | |
| | | | 260 | | | | | 265 | | | | | 270 | | |

<210> 7355

<211> 435

<212> PRT

<213> Enterobacter cloacae

<400> 7355

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Asn | Ala | Arg | Ser | Thr | Val | Glu | Phe | Ile | Arg | Glu | Gln | Thr | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Lys | Phe | Arg | Val | Gln | Gly | Pro | Thr | Arg | Leu | Gln | Gly | Glu | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Ser | Gly | Ala | Lys | Asn | Ala | Ala | Leu | Pro | Ile | Leu | Phe | Ala | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ala | Glu | Glu | Pro | Val | Glu | Ile | Gln | Asn | Val | Pro | Lys | Leu | Lys | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Asp | Thr | Thr | Met | Lys | Leu | Leu | Gly | Gln | Leu | Gly | Thr | Lys | Val | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Arg Asn Gly Ser Val Trp Ile Asp Ala Ser Asn Val Asn Asn Phe Ser
 85 90 95
 Ala Pro Tyr Glu Leu Val Lys Thr Met Arg Ala Ser Ile Trp Ala Leu
 100 105 110
 Gly Pro Leu Val Ala Arg Phe Gly Gln Gly Gln Val Ser Leu Pro Gly
 115 120 125
 Gly Cys Ala Ile Gly Ala Arg Pro Val Asp Leu His Ile Phe Gly Leu
 130 135 140
 Glu Lys Leu Gly Ala Glu Ile Lys Leu Glu Glu Gly Tyr Val Lys Ala
 145 150 155 160
 Ser Val Asn Gly Arg Leu Lys Gly Ala His Ile Val Met Asp Lys Val
 165 170 175
 Ser Val Gly Ala Thr Val Thr Ile Met Ser Ala Ala Thr Leu Ala Glu
 180 185 190
 Gly Thr Thr Ile Ile Glu Asn Ala Ala Arg Glu Pro Glu Ile Val Asp
 195 200 205
 Thr Ala Asn Phe Leu Val Ala Leu Gly Ala Lys Ile Ser Gly Gln Gly
 210 215 220
 Thr Asp Arg Ile Thr Ile Glu Gly Val Glu Arg Leu Gly Gly Gly Val
 225 230 235 240
 Tyr Arg Val Leu Pro Asp Arg Ile Glu Thr Gly Thr Phe Leu Val Ala
 245 250 255
 Ala Ala Ile Ser Gly Gly Lys Ile Val Cys Arg Asn Ala Gln Pro Asp
 260 265 270
 Thr Leu Asp Ala Val Leu Ala Lys Leu Arg Asp Ala Gly Ala Asp Ile
 275 280 285
 Glu Ile Gly Glu Asp Trp Ile Ser Leu Asp Met His Gly Gln Arg Pro
 290 295 300
 Lys Ala Val Asn Val Arg Thr Ala Pro His Pro Ala Phe Pro Thr Asp
 305 310 315 320
 Met Gln Ala Gln Phe Thr Leu Leu Asn Leu Val Ala Glu Gly Thr Gly
 325 330 335
 Phe Ile Thr Glu Thr Ile Phe Glu Asn Arg Phe Met His Val Pro Glu
 340 345 350
 Leu Ile Arg Met Gly Ala His Ala Glu Ile Glu Ser Asn Thr Val Ile
 355 360 365
 Cys His Gly Val Glu Lys Leu Ser Gly Ala Gln Val Met Ala Thr Asp
 370 375 380
 Leu Arg Ala Ser Ala Ser Leu Val Leu Ala Gly Cys Ile Ala Glu Gly
 385 390 395 400
 Thr Thr Val Val Asp Arg Ile Tyr His Ile Asp Arg Gly Tyr Glu Arg
 405 410 415
 Ile Glu Asp Lys Leu Arg Ala Leu Gly Ala Asn Ile Glu Arg Val Lys
 420 425 430
 Gly Glu
 435

<210> 7356

<211> 340

<212> PRT

<213> Enterobacter cloacae

<400> 7356

Glu Asp His Ser Val Ile His Gly Ala Ala Phe Ala Pro Pro Pro Arg
 1 5 10 15
 Arg Tyr Arg Ala Glu Leu Glu Tyr Leu Met Lys Leu Ser Arg Gln Thr
 20 25 30
 Thr Ser Asp Thr Ser Val Asp Gly Arg Ser Arg Ala Tyr Ala Trp Gly
 35 40 45
 Arg Val His Tyr Phe Ile Ile Glu His Ala Pro Met Ala Glu Leu Val
 50 55 60

Ala Ile Asp Glu Leu Leu Glu Lys Ala Gly Trp Ser Asn Asp Gly Cys
 65 70 75 80
 Pro Asn Tyr Glu Lys Asp Asp Glu Phe Gly Asn Ala Gly Tyr Ser Cys
 85 90 95
 Gly Tyr Trp Ile Asp Ile Asp Ser Val Gly Ser Phe Lys Ala Asp Tyr
 100 105 110
 Lys Arg Leu Lys Gly Glu Ile Ser Ala His Ile Ala Ser Lys Ala Ala
 115 120 125
 Glu Val Glu Ile Arg Val Leu Asp Ser Met Ser Asp Lys Glu Cys Lys
 130 135 140
 Asp Val Ala Ser Val Ala Cys Thr Val Arg Arg Asp Leu Arg Thr Gln
 145 150 155 160
 Ser Glu Ser Leu His Ser Leu Arg Thr Ile Val Thr Val Asp His Tyr
 165 170 175
 Asn Pro Tyr Val Ile Thr Ser Arg Pro Leu Ser Ile Ser Ala Trp Thr
 180 185 190
 Leu Ile His Asp Cys Leu Lys Thr Gly Thr Ile Asn Asp Val Cys Ser
 195 200 205
 Arg Leu Ser Ser Leu Ile Leu His Ser Glu Ala Ala Ile Ala Arg Cys
 210 215 220
 Lys Gly Ser Ser Asp Tyr Ser Ser Glu His Ala Gln Leu Ser Phe Phe
 225 230 235 240
 Ala Gly Asn Asp Tyr Val Thr Arg Arg Thr Leu Val Asp Ala Ala His
 245 250 255
 Glu Glu Ala Leu Arg Met Asn Arg Arg Phe Asp Glu Arg Ile Ala Met
 260 265 270
 Asn Ala Asp Ser Asp Ala Arg Arg Leu Gln Cys Glu Phe Asn Leu Ser
 275 280 285
 Asn His Val Val Gln Arg Arg Thr Val Glu Ser Ala His Ile Gln Ala
 290 295 300
 Ile Asn Glu Asp Val Thr Arg Ser Gln Ala Glu Pro Arg Cys Pro Gly
 305 310 315 320
 Lys Leu Leu Leu Lys Met Thr Ser His Glu Glu Val Arg Asp Ser Leu
 325 330 335
 Ser Thr Cys
 340

<210> 7357

<211> 67

<212> PRT

<213> Enterobacter cloacae

<400> 7357

Leu Gln Met Ser Leu Gln Val Ser His Tyr Asn Met Leu Arg Ala Ser
 1 5 10 15
 His Glu Val Ser Gln Lys Val Val Val Arg Thr Val Ile Thr Val Arg
 20 25 30
 Phe Val Pro Glu Ala Asp Phe Leu Lys Ile Leu Arg Ala Gln Gln Leu
 35 40 45
 Gly Ala Gly His Ile Lys Tyr Pro Gln Asn Tyr Arg Glu Tyr Leu Lys
 50 55 60
 Phe Leu
 65

<210> 7358

<211> 100

<212> PRT

<213> Enterobacter cloacae

<400> 7358

Ala Val Gly Gln Ala Thr Leu Gly Ile Asp Thr Asn Val Gly Leu His

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Ala | Lys | Val | Pro | Leu | Ile | Ala | Phe | Leu | Gly | Leu | Met | His | Leu | Arg | Ile |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ala | Leu | Leu | Leu | Phe | Val | Leu | Gly | Arg | Ala | Gly | Cys | Leu | Asn | Asp | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Ile | Asp | Gln | Gly | Ala | Leu | Ser | His | His | Asp | Ala | Cys | Phe | Gly | Gln |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Ala | Ile | Asp | Gly | Leu | Glu | Gln | Leu | Ala | Gly | Gln | Leu | Met | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Gln | Val | Ala | Glu | Ile | His | Asp | Gly | Gly | Ala | Val | Arg | Gln | Gly | Ala |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ile | Gln | Gly | | | | | | | | | | | | | |
| | | | 100 | | | | | | | | | | | | |

<210> 7359

<211> 84

<212> PRT

<213> Enterobacter cloacae

<400> 7359

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gly | Phe | Gln | Arg | Ile | Arg | Ser | Pro | Ala | Ile | Thr | Ser | Leu | Gly | Val |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Lys | Arg | Leu | Asp | Asp | Phe | His | His | Val | Leu | Pro | Trp | Gln | Asn | Leu | Leu |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| His | Thr | Gly | Gln | Glu | Asn | Leu | Phe | Ser | Gly | Leu | Thr | Ala | Leu | Thr | Ala |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Glu | Phe | Thr | Val | Gly | Glu | Gly | Lys | Leu | Met | Thr | His | Asp | Glu | Pro | Cys |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ser | Met | Ala | Pro | Asp | Asp | Lys | His | Asp | Leu | Ile | Ser | Gly | Thr | Cys | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| His | Leu | Pro | | | | | | | | | | | | | |

<210> 7360

<211> 285

<212> PRT

<213> Enterobacter cloacae

<400> 7360

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Val | Pro | Arg | Gln | Phe | Ser | Gly | Gly | Phe | Phe | Met | Ile | Lys | Glu | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Thr | Met | Ser | His | Lys | Glu | Leu | Asp | Arg | Leu | His | Ile | Ile | Gln | Glu |
| | | 20 | | | | | | 25 | | | | 30 | | | |
| Ser | Leu | Asn | Arg | His | Ile | Thr | Gln | Glu | Gln | Ala | Ala | Ala | Arg | Ile | Gly |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Ile | Ser | Ile | Arg | Gln | Val | Lys | Arg | Leu | Val | Gln | Arg | Tyr | Arg | Asn | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Pro | Ser | Gly | Leu | Val | Ser | Arg | Arg | Arg | Gly | Lys | Arg | Pro | Asn | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Phe | Ser | Thr | Glu | Phe | Arg | Ala | Thr | Val | Ile | Ser | Leu | Leu | Lys | Gly |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Arg | Tyr | Ala | Asp | Phe | Gly | Pro | Thr | Leu | Ala | Cys | Glu | Lys | Leu | Arg | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | His | Gly | Leu | Cys | Leu | Ser | Ile | Glu | Thr | Leu | Arg | Lys | Trp | Met | Val |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Glu | Glu | Gly | Ile | Trp | Arg | Glu | Arg | Arg | Arg | Lys | Phe | Ala | Arg | Ile | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Arg | Arg | Met | Arg | Arg | Pro | Ser | Tyr | Gly | Glu | Leu | Ile | Gln | Ile | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ser | Pro | His | Asp | Trp | Phe | Glu | Gly | Arg | Gly | Pro | Lys | Cys | Thr | Leu |
| | | | | 165 | | | | 170 | | | | | | 175 | |

Ile Val Phe Phe Asp Asp Ala Thr Ser Ala Leu Met Ala Leu Arg Phe
 180 185 190
 Ala Pro Ala Glu Thr Thr Arg Ala Tyr Met Glu Thr Leu Arg Gly Tyr
 195 200 205
 Leu Asn Asp His Gly Val Pro Leu Ala Leu Tyr Ser Asp Arg His Ser
 210 215 220
 Ile Phe Arg Val Asn Asn Pro Glu Arg Glu Arg Arg Val Asp Ser Val
 225 230 235 240
 His Thr Cys Asp Lys Asp Thr Gly His Arg Ala Asn Pro Cys Gln Gln
 245 250 255
 Pro Ala Gly Lys Arg Ala Gly Arg Ala Cys Gln Ser Asp Thr Ala Gly
 260 265 270
 Gln Ala Gly Gln Arg Asn Ala Ala Ser Gly Tyr Gln
 275 280 285

<210> 7361

<211> 214

<212> PRT

<213> Enterobacter cloacae

<400> 7361

Arg Gly Phe Met Leu Ile Ile Gly Ala Cys Thr Arg Phe Ile Thr Ser
 1 5 10 15
 Val Ala Trp Ala Leu Asn Arg Arg Arg Arg Lys Gly Leu Ala Thr
 20 25 30
 Glu Arg Leu Pro Cys Phe Leu Pro Ala Ala Pro Asn Leu Thr Trp Ser
 35 40 45
 Met Asp Phe Val Met Asp Ala Leu Ser Thr Gly Arg Arg Ile Lys Cys
 50 55 60
 Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys Leu Thr Val Thr Val
 65 70 75 80
 Ala Phe Gly Ile Ser Gly Val Gln Val Thr Arg Ile Leu Asp Ser Ile
 85 90 95
 Ala Leu Phe Arg Gly Tyr Pro Ala Thr Ile Arg Thr Asp Gln Gly Pro
 100 105 110
 Glu Phe Thr Cys Arg Ala Leu Asp Gln Trp Ala Phe Glu His Gly Val
 115 120 125
 Glu Leu Arg Leu Ile Gln Pro Gly Lys Pro Thr Gln Asn Gly Phe Ile
 130 135 140
 Glu Ser Phe Asn Gly Arg Phe Arg Asp Glu Cys Leu Asn Glu His Trp
 145 150 155 160
 Phe Ser Asp Ile Val His Ala Arg Lys Ile Ile Asn Asp Trp Arg Gln
 165 170 175
 Asp Tyr Asn Glu Cys Arg Pro His Ser Thr Leu Asn Tyr Gln Thr Pro
 180 185 190
 Ser Glu Phe Ala Ala Gly Trp Arg Lys Gly His Ser Glu Asn Glu Asp
 195 200 205
 Ser Asp Val Thr Asn
 210

<210> 7362

<211> 351

<212> PRT

<213> Enterobacter cloacae

<400> 7362

Val Leu Tyr Leu Ile Val Gly Ala Gly His Gly Asp Ser Leu Asn Asn
 1 5 10 15
 Ala Asn Met Trp Gly Gly Glu Ile Leu Asn Arg Val Gln Gln Cys Thr
 20 25 30
 Ser Tyr Thr Leu Ala Leu Thr Gly Thr Pro Trp Arg Thr Asp Asn Asn

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Pro Ile Val Leu Ser Asn Tyr Thr Asp Pro Gln Gly Lys Ile Cys Cys | | |
| 50 | 55 | 60 |
| Asp Tyr Val Tyr Gly Leu His Glu Ala Ile Val Asp Gly Val Cys Arg | | |
| 65 | 70 | 75 |
| Lys Pro Lys Ile Ala Leu Ile Asn Ser Asn Asn Leu Leu Tyr Ser Ser | | |
| 85 | 90 | 95 |
| Gly Glu Val Val Gln His Phe Asp Ser Ile Ala Gly Phe Leu Ser Glu | | |
| 100 | 105 | 110 |
| Thr Ile Thr Ser Tyr Gln Ser Ile Ile Trp His Pro Asp Ala Met Lys | | |
| 115 | 120 | 125 |
| Tyr Leu Leu Lys Ser Gly Cys Lys Lys Leu Cys Glu Ile Arg Lys Val | | |
| 130 | 135 | 140 |
| Asn Ser Asp Ala Gly Gly Leu Val Val Ala Ser Ser Val Glu His Ala | | |
| 145 | 150 | 155 |
| Tyr Gln Leu Leu Asn Ile Leu Glu Asn Glu Phe Ala Gln Thr Ala Thr | | |
| 165 | 170 | 175 |
| Ile Val Thr Tyr His Asp Arg Asp Ala Leu Val Lys Ile Glu Asn Tyr | | |
| 180 | 185 | 190 |
| Arg Gln Ser Thr Thr Glu Trp Ile Val Ser Val Gly Met Ile Ser Glu | | |
| 195 | 200 | 205 |
| Gly Thr Asp Ile Pro Arg Leu Gln Val Cys Cys His Leu Ser Ser Val | | |
| 210 | 215 | 220 |
| Lys Thr Glu Leu Tyr Phe Arg Gln Val Leu Gly Arg Ile Leu Arg Val | | |
| 225 | 230 | 235 |
| Asn Gln Ser Glu Asn Gln Glu Ala Trp Leu Phe Thr Ile Ala Thr Asp | | |
| 245 | 250 | 255 |
| Glu Leu Thr Leu Phe Ser Asn Arg Leu Ala Glu Asp Leu Pro Glu Asp | | |
| 260 | 265 | 270 |
| Tyr Lys Ile Leu Gln Lys Gln Ser Asp Glu Trp Ser Leu Ser Ile His | | |
| 275 | 280 | 285 |
| Glu Thr Glu Ser Thr Ser Pro Glu Ile Val Arg Arg Asn Gly Met Ser | | |
| 290 | 295 | 300 |
| Lys Ile Gly Glu Phe Asn Leu Lys Met Asn Phe Ser Glu Ile Thr Ile | | |
| 305 | 310 | 315 |
| Ser Pro Pro Ala Val Leu Asp Lys Thr Lys Gln Leu Asn Met Gly Ser | | |
| 325 | 330 | 335 |
| Leu Tyr Gln Gln Val Ile Asp Ala Phe Leu Phe Ser Val Ile | | |
| 340 | 345 | 350 |

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<211> 93

<212> PRT

<213> Enterobacter cloacae

<400> 7363

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| Ser Ala Ala Trp Arg Gly Ala Ile Cys Leu Ser Arg Cys Arg Leu Pro | |
| 1 | 5 |
| Arg Gly Ala Thr Ala Arg Gly Ala Gly Arg Gly Gly Cys Gly Leu Ala | |
| 20 | 25 |
| Asp Arg Arg Ala Pro Arg Gln Gly Lys Asn Leu Glu Thr Ala Ser Thr | |
| 35 | 40 |
| Gln Glu Gln Asn Gly His Gln His Arg Ile His Glu Ser Gln His Pro | |
| 50 | 55 |
| Gly Gln Gly Gly Ala Pro Ile Ser His His Gln Ala Thr Val Arg Leu | |
| 65 | 70 |
| Arg Glu Ser Gln Ile Gln Gly Val Ala Glu Lys Arg | |
| 85 | 90 |

<210> 7364

<211> 230

<212> PRT

<213> Enterobacter cloacae

<400> 7364

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Arg | Ser | Gly | Lys | Gly | Glu | Leu | Thr | Gln | Phe | Thr | Arg | Ala | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Thr | Leu | Gly | Ile | Glu | Pro | Ile | His | Ala | Asn | Ser | Pro | Gln | Ala | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Arg | Val | Glu | Arg | Ala | Asn | Gln | Thr | Leu | Gln | Asp | Arg | Leu | Val | Lys |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Glu | Met | Arg | Leu | Gln | Gly | Ile | Ser | Asp | Ile | Glu | Thr | Ala | Asn | Ala | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Pro | Thr | Phe | Ile | Glu | Ala | Tyr | Asn | Asn | Arg | Phe | Ala | Thr | Pro | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Ile | Ala | Asp | Asn | Ala | His | Leu | Asp | Val | His | His | Ser | Glu | Glu | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Gly | Tyr | Ile | Phe | Ser | Leu | Gln | Ala | Lys | Arg | Val | Leu | Ser | Lys | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Thr | Phe | Gln | Tyr | Lys | Ser | Ser | Ala | Phe | Gln | Ile | Arg | Ser | Glu | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Gly | Tyr | Arg | Leu | Arg | His | Ser | Val | Val | Thr | Val | Cys | Glu | Ser | Phe |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Asn | Gly | Glu | Ile | Lys | Val | Leu | Tyr | Asp | Gly | Lys | Ala | Leu | Gly | Trp | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Tyr | Val | Asp | Gly | Pro | Glu | Pro | Ile | Pro | Leu | Asp | Asp | Glu | Lys | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | His | Glu | Arg | Val | Asp | Asn | Ala | Arg | Phe | Asp | Leu | Arg | Ser | Lys | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Tyr | Val | Lys | Pro | Lys | Ala | Asp | His | Pro | Trp | Leu | Thr | Arg | Arg | Thr | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Asn | Gln | Gln | Val | Lys | Pro | Pro | Lys | Leu | Pro | Arg | Lys | Lys | Ala | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Asp | Lys | Met | Asp | | | | | | | | | | | |
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<210> 7365

<211> 316

<212> PRT

<213> Enterobacter cloacae

<400> 7365

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Tyr | Phe | Arg | Lys | Leu | Ile | Met | Thr | Lys | Thr | Lys | Gly | Leu | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Pro | Leu | Thr | His | Tyr | Ala | Trp | Leu | Ser | Ile | Ala | Thr | Ala | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ile | Gly | Leu | Lys | Gly | Val | Ala | Trp | Lys | Met | Thr | Gly | Ser | Val | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Ser | Asp | Ala | Ile | Glu | Ser | Val | Val | Asn | Leu | Ala | Gly | Ala | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Ala | Leu | Trp | Met | Leu | Thr | Leu | Ala | Ala | Leu | Pro | Ala | Asp | Glu | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Ala | Tyr | Gly | His | Gly | Lys | Ala | Glu | Tyr | Phe | Ser | Ser | Ala | Phe | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Phe | Leu | Ile | Leu | Leu | Ala | Ala | Ala | Ser | Ile | Ala | Tyr | Thr | Ala | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Arg | Met | Leu | Thr | Pro | Gln | Pro | Leu | Glu | Glu | Ile | Gly | Leu | Gly | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Val | Ser | Thr | Val | Ala | Ser | Ile | Leu | Asn | Phe | Val | Thr | Ala | Arg | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Arg | Ala | Gly | Arg | Gln | His | Asn | Ser | Ile | Thr | Leu | Glu | Ala | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |

Ala His His Leu Leu Thr Asp Val Trp Thr Ser Val Gly Val Ile Phe
165 170 175
Gly Val Gly Leu Val Tyr Leu Thr Gly Trp Phe Trp Val Asp Pro Ile
180 185 190
Val Ala Leu Leu Val Ala Ala Asn Ile Val Trp Thr Gly Tyr Gln Leu
195 200 205
Met Ser Arg Ser Ala Ala Gly Leu Met Asp Val Ser Leu Pro Thr Glu
210 215 220
Glu Leu Lys Lys Ile Glu Ser Leu Leu Ala Gly Tyr Arg Glu Gln Gly
225 230 235 240
Leu Asp Phe His Ala Leu Arg Thr Arg Gln Ala Gly Gly Arg Ala Phe
245 250 255
Met Thr Met His Ile Leu Val Pro Gly Arg Trp Thr Val Gln Tyr Gly
260 265 270
His Asp Trp Ala Glu Arg Ile Glu Asn Asp Ile Arg Thr Ala Leu Pro
275 280 285
Phe Ile His Ile Thr Thr His Val Glu Pro Leu Glu Asp Pro Ala Ser
290 295 300
Met Asn Asp Gln Thr Leu Asp Ile Ser Asp His
305 310 315

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<211> 98

<212> PRT

<213> Enterobacter cloacae

<400> 7366

Thr Leu Met Ala Tyr Phe Leu Asp Phe Asp Glu Arg Ala Leu Lys Glu
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Trp Arg Lys Leu Gly Ser Thr Val Arg Glu Gln Leu Lys Lys Leu
20 25 30
Val Glu Val Leu Glu Ser Pro Arg Ile Glu Ala Asn Lys Leu Arg Gly
35 40 45
Met Pro Asp Cys Tyr Lys Ile Lys Leu Arg Ser Ser Gly Tyr Arg Leu
50 55 60
Val Tyr Gln Val Ile Asp Glu Lys Val Val Val Phe Val Ile Ser Val
65 70 75 80
Gly Lys Arg Glu Arg Ser Glu Val Tyr Ser Glu Ala Val Lys Arg Ile
85 90 95
Leu

<210> 7367

<211> 342

<212> PRT

<213> Enterobacter cloacae

<400> 7367

Tyr Glu Ile Met Phe Val Ile Trp Ser His Gly Thr Gly Phe Ile Met
1 5 10 15
Ser His Gln Leu Thr Phe Ala Asp Ser Glu Phe Ser Ser Lys Arg Arg
20 25 30
Gln Thr Arg Lys Glu Ile Phe Leu Ser Arg Met Glu Gln Ile Leu Pro
35 40 45
Trp Gln Asn Met Val Glu Val Ile Glu Pro Phe Tyr Pro Lys Ala Gly
50 55 60
Asn Gly Arg Arg Pro Tyr Pro Leu Glu Thr Met Leu Arg Ile His Cys
65 70 75 80
Met Gln His Trp Tyr Asn Leu Ser Asp Gly Ala Met Glu Asp Ala Leu
85 90 95
Tyr Glu Ile Ala Ser Met Arg Arg Phe Ala Arg Leu Ser Leu Asp Ser

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Pro | 100 | Asp | Arg | Thr | Thr | Ile | 105 | Met | Asn | Phe | Arg | His | 110 | Leu | Leu | Glu |
| | | 115 | | | | | | 120 | | | | | | 125 | | | | |
| Gln | His | Gln | Leu | Ala | Arg | Gln | Gln | Leu | Phe | Lys | Thr | Ile | Asn | Arg | Trp | Leu | | |
| | 130 | | | | | 135 | | | | | | 140 | | | | | | |
| Ala | Glu | Ala | Gly | Val | Met | Met | Thr | Gln | Gly | Thr | Leu | Val | Asp | Ala | Thr | | | |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 | | | |
| Ile | Ile | Glu | Ala | Pro | Ser | Ser | Thr | Lys | Asn | Lys | Glu | Gln | Gln | Arg | Asp | | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | | |
| Pro | Glu | Met | His | Gln | Thr | Lys | Lys | Gly | Asn | Gln | Trp | His | Phe | Gly | Met | | | |
| | | 180 | | | | | | 185 | | | | | 190 | | | | | |
| Lys | Ala | His | Ile | Gly | Val | Asp | Ala | Lys | Ser | Gly | Leu | Thr | His | Ser | Leu | | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | | |
| Val | Thr | Thr | Ala | Ala | Asn | Glu | His | Asp | Leu | Asn | Gln | Leu | Gly | Asn | Leu | | | |
| | 210 | | | | 215 | | | | | | 220 | | | | | | | |
| Leu | His | Gly | Glu | Glu | Gln | Phe | Val | Ser | Ala | Asp | Ala | Gly | Tyr | Gln | Gly | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Ala | Pro | Gln | Arg | Glu | Glu | Leu | Ala | Glu | Val | Asp | Val | Asp | Trp | Leu | Ile | | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | | |
| Ala | Glu | Arg | Pro | Gly | Lys | Val | Arg | Thr | Leu | Lys | Gln | His | Pro | Arg | Lys | | | |
| | | 260 | | | | | | 265 | | | | | 270 | | | | | |
| Asn | Lys | Thr | Ala | Ile | Asn | Ile | Glu | Tyr | Met | Lys | Ala | Ser | Ile | Arg | Ala | | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | | |
| Lys | Val | Glu | His | Pro | Phe | Arg | Ile | Ile | Lys | Arg | Gln | Phe | Gly | Phe | Val | | | |
| | 290 | | | | | 295 | | | | 300 | | | | | | | | |
| Lys | Ala | Arg | Tyr | Lys | Gly | Leu | Leu | Lys | Asn | Asp | Asn | Gln | Leu | Ala | Met | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | |
| Leu | Phe | Thr | Leu | Ala | Asn | Leu | Phe | Arg | Ala | Asp | Gln | Met | Ile | Arg | Gln | | | |
| | | | 325 | | | | | 330 | | | | | | 335 | | | | |
| Trp | Glu | Arg | Ser | His | | | | | | | | | | | | | | |
| | | | 340 | | | | | | | | | | | | | | | |

<210> 7368

<211> 458

<212> PRT

<213> Enterobacter cloacae

<400> 7368

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Leu | Phe | Phe | Arg | Ala | Ser | Arg | Cys | Ser | Thr | Phe | Ala | Asn | Glu |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Tyr | Ser | Gly | His | Ala | Asp | Lys | Leu | Leu | Ala | Ile | Phe | Leu | Ser | Lys | Ser |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Val | Glu | Cys | Ile | Pro | Ile | Pro | Asp | Lys | Lys | Glu | Leu | Val | Met | Thr | Val |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Thr | Asn | Gln | Phe | Ala | Ala | His | Val | Gly | Leu | Asp | Trp | Ala | Asp | Lys | Lys |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| His | Asp | Val | Cys | Val | Gln | Phe | Lys | Asn | Gly | Glu | Arg | Val | Phe | Asp | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ile | Glu | His | Thr | Ala | Glu | Ala | Leu | Asp | Ala | Trp | Leu | Thr | Glu | Leu | His |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gln | Lys | Val | Lys | Gly | Arg | Ile | Ala | Ile | Ala | Leu | Glu | Leu | Lys | Lys | Gly |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Pro | Val | Val | Tyr | Ala | Leu | Gln | Lys | Tyr | Pro | Phe | Ile | Thr | Val | Phe | Pro |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | His | Ala | Leu | Ser | Leu | Ala | Arg | Tyr | Arg | Gln | Ala | Phe | Ser | Pro | Ser |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Gly | Ala | Lys | Asp | Asp | Pro | Gln | Asp | Ala | Glu | Leu | Ala | Leu | Glu | Leu | Met |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | Arg | Tyr | Pro | Gln | Lys | Ile | Lys | Ala | Ile | Glu | Pro | Asp | Asn | Ala | Asp |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Ile | Arg | Leu | Leu | Gln | Gln | Leu | Val | Glu | Gln | Arg | Arg | Gln | Leu | Val | Glu |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|-----|--|--|--|--|--|--|--|-----|--|--|--|
| | | | | | | | | | | 180 | | | | | | | | 185 | | | | | | | | 190 | | | |
| Asp | Lys | Arg | Arg | Phe | Val | Asn | Arg | Ile | Ile | Asn | Thr | Leu | Lys | Gln | Tyr | | | | | | | | | | | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | | | | | | | | | | | | | |
| Tyr | Pro | Gln | Pro | Leu | Glu | Trp | Phe | Ser | His | Arg | Gly | Ser | Leu | Leu | Leu | | | | | | | | | | | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | | | | | | | | | | | | | |
| Cys | Glu | Leu | Ile | Ile | Arg | Trp | Pro | Ser | Leu | Gln | Gln | Leu | Lys | Arg | Ala | | | | | | | | | | | | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | | | | | | | | | | | | |
| Arg | Arg | Asp | Thr | Ile | Arg | Asn | Phe | Leu | Asn | Ala | Lys | Gly | Gly | Arg | Ala | | | | | | | | | | | | | | |
| | | | | 245 | | | | | 250 | | | | | | 255 | | | | | | | | | | | | | | |
| Met | Ala | Leu | Thr | Glu | Gln | Arg | Val | Ala | Ser | Ile | Asp | Asn | Ala | Ile | Pro | | | | | | | | | | | | | | |
| | | | 260 | | | | | 265 | | | | | | | 270 | | | | | | | | | | | | | | |
| Leu | Thr | Thr | Asp | Pro | Ser | Val | Ile | Glu | Ala | Asn | Ala | Leu | Met | Ala | Ala | | | | | | | | | | | | | | |
| | | 275 | | | | | 280 | | | | | | | | 285 | | | | | | | | | | | | | | |
| Ala | Leu | Ala | Thr | Gln | Ile | Lys | Val | Val | Ser | Glu | Ile | Ile | Lys | Thr | Tyr | | | | | | | | | | | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | | | | | | | | | | | |
| Asp | Glu | Arg | Ile | Glu | Thr | Leu | Phe | Asp | Thr | Leu | Pro | Asp | Ala | Gly | Leu | | | | | | | | | | | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | | | | | | | | | | | | | |
| Phe | Lys | Ser | Leu | Pro | Gly | Met | Gly | Pro | Cys | Met | Gly | Pro | Arg | Met | Leu | | | | | | | | | | | | | | |
| | | | | 325 | | | | | 330 | | | | | | 335 | | | | | | | | | | | | | | |
| Ala | Ala | Leu | Gly | Asp | Asn | Arg | Asp | Arg | Phe | Asn | Ser | Ala | Glu | Glu | Ile | | | | | | | | | | | | | | |
| | | | 340 | | | | | 345 | | | | | | | 350 | | | | | | | | | | | | | | |
| Gln | Asn | Tyr | Ala | Gly | Ile | Ala | Pro | Val | Thr | Glu | Arg | Ser | Gly | Gln | Lys | | | | | | | | | | | | | | |
| | | 355 | | | | | 360 | | | | | | | | 365 | | | | | | | | | | | | | | |
| Ser | Trp | Val | His | Trp | Arg | Trp | Gln | Cys | Ala | Lys | Phe | Val | Arg | Gln | Thr | | | | | | | | | | | | | | |
| | 370 | | | | | 375 | | | | | | | | | 380 | | | | | | | | | | | | | | |
| Phe | Val | Glu | Trp | Ala | Ala | Lys | Thr | Val | Asn | Ser | Ser | Tyr | Trp | Ala | Lys | | | | | | | | | | | | | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | | | | | | | | | | | | | |
| Leu | Tyr | Tyr | Gln | Gly | Leu | Arg | Glu | Lys | Gly | Lys | Ser | His | Gln | Ser | Ala | | | | | | | | | | | | | | |
| | | | 405 | | | | | | 410 | | | | | | 415 | | | | | | | | | | | | | | |
| Ile | Arg | Ala | Leu | Ala | Phe | Lys | Trp | Ile | Arg | Ile | Ile | Tyr | Arg | Cys | Trp | | | | | | | | | | | | | | |
| | | | 420 | | | | | 425 | | | | | | | 430 | | | | | | | | | | | | | | |
| Lys | Ala | Arg | Thr | Cys | Tyr | Asp | Glu | Ala | Lys | Tyr | Leu | Leu | Ala | Leu | Glu | | | | | | | | | | | | | | |
| | | 435 | | | | | 440 | | | | | | | | 445 | | | | | | | | | | | | | | |
| Ala | Arg | His | Ser | Pro | Leu | Leu | Lys | Pro | | | | | | | | | | | | | | | | | | | | | |
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<210> 7369

<211> 81

<212> PRT

<213> Enterobacter cloacae

<400> 7369

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Met | Gly | Ser | Ile | Asn | Leu | Arg | Ile | Asp | Asp | Glu | Leu | Lys | Ala | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Tyr | Ala | Ala | Leu | Glu | Lys | Met | Gly | Val | Thr | Pro | Ser | Glu | Ala | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Arg | Leu | Met | Leu | Glu | Tyr | Ile | Ala | Asp | Asn | Glu | Arg | Leu | Pro | Phe | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Thr | Leu | Leu | Ser | Asp | Glu | Asp | Ala | Glu | Leu | Val | Glu | Ile | Val | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Arg | Leu | Arg | Asn | Pro | Lys | Pro | Val | Arg | Val | Thr | Leu | Asp | Glu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

<210> 7370

<211> 63

<212> PRT

<213> Enterobacter cloacae

<400> 7370

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| His | Phe | Cys | Phe | Ala | Leu | Thr | Gly | Glu | Glu | Gly | His | Glu | Asn | Ala | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Thr | His | Cys | Phe | Val | His | Ile | Asn | Ser | Leu | Phe | Asn | Ala | Val | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | His | Leu | Ala | His | Thr | Lys | Leu | Ala | Leu | Arg | Val | Ala | Asp | Glu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Asn | Lys | Gly | Gly | Ile | Cys | Tyr | Pro | Gly | Leu | Arg | Ile | Arg | | |
| | 50 | | | | | 55 | | | | | 60 | | | | |

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<211> 404

<212> PRT

<213> Enterobacter cloacae

<400> 7371

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| Leu | Cys | Tyr | Gly | His | Gln | Lys | Leu | Lys | Arg | Val | Glu | Val | Lys | Gln | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Ile | Thr | Ile | Ser | Gly | Thr | Gly | Tyr | Val | Gly | Leu | Ser | Asn | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ile | Ala | Gln | Asn | His | Glu | Val | Val | Ala | Leu | Asp | Ile | Val | Gln | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Val | Asp | Met | Leu | Asn | Gln | Lys | Lys | Ser | Pro | Ile | Val | Asp | Lys | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Glu | Glu | Tyr | Leu | Ala | Thr | Lys | Pro | Leu | Asn | Phe | Arg | Ala | Thr | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Lys | Glu | Asp | Ala | Tyr | Arg | Asp | Ala | Asp | Phe | Val | Ile | Ile | Ala | Thr |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Pro | Thr | Asp | Tyr | Asp | Pro | Lys | Thr | Asn | Tyr | Phe | Asn | Thr | Ser | Thr | Val |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Glu | Ala | Val | Ile | Lys | Asp | Val | Thr | Ala | Ile | Asn | Pro | Asn | Ala | Val | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Ile | Lys | Ser | Thr | Ile | Pro | Val | Gly | Phe | Thr | Lys | Ser | Ile | Lys | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Leu | Gly | Ile | Asp | Asn | Val | Phe | Phe | Ser | Pro | Glu | Phe | Leu | Arg | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Arg | Ala | Leu | Tyr | Asp | Asn | Leu | His | Pro | Ser | Arg | Ile | Val | Ile | Gly |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Glu | Arg | Ser | Glu | Arg | Ala | Glu | Arg | Phe | Ala | Ala | Leu | Leu | Gln | Glu | Gly |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ala | Ile | Lys | Lys | Asp | Ile | Pro | Val | Leu | Phe | Thr | Asp | Ser | Thr | Glu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Ala | Ile | Lys | Leu | Phe | Ala | Asn | Thr | Tyr | Leu | Ala | Met | Arg | Val | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Tyr | Phe | Asn | Glu | Leu | Asp | Ser | Tyr | Ala | Glu | Ser | Leu | Gly | Leu | Asn | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Gln | Ile | Ile | Glu | Gly | Val | Cys | Leu | Asp | Pro | Arg | Ile | Gly | Asn | His |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Tyr | Asn | Asn | Pro | Ser | Phe | Gly | Tyr | Gly | Gly | Tyr | Cys | Leu | Pro | Lys | Asp |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Thr | Lys | Gln | Leu | Leu | Ala | Asn | Tyr | Gln | Ala | Val | Pro | Asn | Asn | Leu | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Ala | Ile | Val | Asp | Ala | Asn | Arg | Thr | Arg | Lys | Asp | Phe | Ile | Ser | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Ile | Leu | Ala | Arg | Gln | Pro | Lys | Val | Val | Gly | Val | Tyr | Arg | Leu | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Met | Lys | Ser | Gly | Ser | Asp | Asn | Phe | Arg | Ala | Ser | Ser | Ile | Gln | Gly | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Met | Lys | Arg | Ile | Lys | Ala | Lys | Gly | Val | Gln | Val | Ile | Ile | Tyr | Glu | Pro |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Ala | Met | Gln | Glu | Asp | Glu | Phe | Phe | His | Ser | Arg | Val | Ile | Arg | Asp | Leu |
| | | 355 | | | | | 360 | | | | | | 365 | | |

Asp Ala Phe Lys Lys Glu Ala Asp Val Ile Ile Ser Asn Arg Met Ala
 370 375 380
 Glu Glu Leu Ala Asp Val Lys Asp Lys Val Tyr Thr Arg Asp Leu Phe
 385 390 395 400
 Gly Ser Asp

<210> 7372
 <211> 156
 <212> PRT
 <213> Enterobacter cloacae

<400> 7372
 Arg Ala Gln Thr Ser Ser Tyr Ser Glu Thr Leu Glu Pro Ala Ser Val
 1 5 10 15
 Pro Ser Arg Glu Ile Ser Val His Arg Thr Cys Phe Ser Pro Thr Gly
 20 25 30
 Arg Tyr Ile Pro Thr Ser Ser Ser Ser Val Thr Pro Glu Phe Ser Cys
 35 40 45
 Gln Pro Leu Thr Ala Thr Cys Leu Leu Pro Cys Ser Ser Met Arg Thr
 50 55 60
 Ser Ser Ala Ser Thr Ser Ala Ser Ala Pro Lys Arg Arg Asn Gln Pro
 65 70 75 80
 Leu Thr Leu Ser Gly Ser Phe Thr Ala Val Glu Pro Thr Thr Thr Arg
 85 90 95
 Ala Thr Pro Ala Ser Ser Lys Ala Ala Thr Ser Ala Ser Val Arg Thr
 100 105 110
 Pro Pro Pro Thr Cys Thr Gly Thr Ser Thr Pro Ala Thr Ser Val Leu
 115 120 125
 Ser Ser Gly Ile Trp Arg Phe Ala Gly Ser Phe Ala Pro Val Arg Ser
 130 135 140
 Thr Arg Cys Asn Thr Ser Ala Pro Ser Ala Ala
 145 150 155

<210> 7373
 <211> 117
 <212> PRT
 <213> Enterobacter cloacae

<400> 7373
 Glu Trp Ile Leu Ser Arg Thr Pro Gly Gln Lys Ser Pro Ala His Arg
 1 5 10 15
 Pro Leu Tyr Arg Ser Pro Ala Arg Arg Thr Ala Ser Pro Arg Thr Gly
 20 25 30
 Ser His Arg Gln Leu Val Glu Glu Ser Arg Ala Pro Pro Ser Asp Asn
 35 40 45
 Arg Gln Tyr Val Pro Gly Trp Pro Ala Ser Gly Arg Ser Lys Thr Ala
 50 55 60
 Glu Gln Ser Arg Arg Glu Tyr Arg Gly Arg Arg Thr Pro Pro Val Ala
 65 70 75 80
 Ser Pro Ala Gly Ser Ala Arg Arg Ala Gly Phe Pro His Pro Pro Pro
 85 90 95
 Ala Ile Ser Ala Arg Cys Gly Arg Tyr Gln Tyr Phe Ser Pro Arg Arg
 100 105 110
 Pro Ser Pro Val
 115

<210> 7374
 <211> 381
 <212> PRT
 <213> Enterobacter cloacae

<400> 7374

Arg Tyr Arg Ala Phe Leu Ser Tyr Pro Ile His Leu Leu Phe Asn Gly
 1 5 10 15
 Ile Asp Cys Val Lys Ile Leu Val Thr Gly Gly Ala Gly Phe Ile Gly
 20 25 30
 Ser Ala Val Ile Arg His Ile Ile Ser Asn Thr Arg Asp Ser Val Val
 35 40 45
 Asn Val Asp Lys Leu Thr Tyr Ala Gly Asn Leu Glu Ser Leu Arg Glu
 50 55 60
 Val Ser Asp Ser Glu Arg Tyr Val Phe Glu His Ala Asp Ile Cys Asp
 65 70 75 80
 Lys Glu Ala Met Ala Arg Ile Phe Ala Thr His Gln Pro Asp Ala Val
 85 90 95
 Met His Leu Ala Ala Glu Ser His Val Asp Arg Ser Ile Thr Gly Pro
 100 105 110
 Ala Ala Phe Ile Glu Thr Asn Ile Phe Gly Thr Tyr Ile Leu Leu Glu
 115 120 125
 Thr Ser Arg Ala Tyr Trp Ser Ser Leu Asp Glu Ala Ala Lys Ser Ala
 130 135 140
 Phe Arg Phe His His Ile Ser Thr Asp Glu Val Tyr Gly Asp Leu Pro
 145 150 155 160
 His Pro Asp Glu His Ser Asp Ser Thr Pro Leu Pro Leu Phe Thr Glu
 165 170 175
 Lys Thr Ala Tyr Gln Pro Ser Ser Pro Tyr Ser Ala Ser Lys Ala Ser
 180 185 190
 Ser Asp His Leu Val Arg Ala Trp Ile Arg Thr Tyr Gly Leu Pro Gly
 195 200 205
 Ile Val Thr Asn Cys Ser Asn Asn Tyr Gly Pro Tyr His Phe Pro Glu
 210 215 220
 Lys Leu Ile Pro Leu Val Ile Leu Asn Ala Leu Asp Asn Lys Pro Leu
 225 230 235 240
 Pro Ile Tyr Gly Lys Gly Asp Gln Ile Arg Asp Trp Leu Tyr Val Glu
 245 250 255
 Asp His Ala Arg Ala Leu Tyr Thr Val Leu Thr Thr Gly Lys Pro Gly
 260 265 270
 Glu Thr Tyr Asn Ile Gly Gly His Asn Glu Lys Lys Asn Ile Glu Val
 275 280 285
 Val Gln Thr Ile Cys Asp Leu Leu Asp Asp Met Val Pro Lys Glu Thr
 290 295 300
 Ser Tyr Arg Ala Gln Ile Thr Tyr Val Ala Asp Arg Pro Gly His Asp
 305 310 315 320
 Arg Arg Tyr Ala Ile Asp Ala His Lys Ile Ser Asp Glu Leu Gly Trp
 325 330 335
 Thr Pro Val Glu Thr Phe Glu Ser Gly Ile Arg Lys Thr Val Lys Trp
 340 345 350
 Tyr Leu Asn Asn Gln Glu Trp Val Ser Asn Val Lys Ser Gly Ala Tyr
 355 360 365
 Lys Ser Trp Ile Glu Gln Asn Tyr Gly Glu Arg Lys
 370 375 380

<210> 7375

<211> 294

<212> PRT

<213> Enterobacter cloacae

<400> 7375

Met Thr Lys Arg Lys Gly Ile Ile Leu Ala Gly Gly Ser Gly Thr Arg
 1 5 10 15
 Leu Tyr Pro Val Thr Met Ala Val Ser Lys Gln Leu Leu Pro Ile Tyr
 20 25 30

Asp Lys Pro Met Ile Tyr Tyr Pro Leu Ser Thr Leu Met Leu Ala Gly
 35 40 45
 Ile Arg Asp Ile Leu Ile Ile Ser Thr Pro Gln Asp Thr Pro Arg Phe
 50 55 60
 Glu Gln Leu Leu Gly Asn Gly Ser Gln Trp Gly Leu His Ile Gln Tyr
 65 70 75 80
 Lys Val Gln Pro Ser Pro Asp Gly Leu Ala Gln Ala Phe Ile Leu Gly
 85 90 95
 Glu Glu Phe Ile Gly Glu Asp Asn Cys Ala Leu Val Leu Gly Asp Asn
 100 105 110
 Ile Phe Tyr Gly His Asp Leu Pro Arg Leu Leu Glu Gly Ala Ala Ser
 115 120 125
 Gln Gln Glu Gly Ala Thr Val Phe Ala Tyr His Val Ser Asp Pro Glu
 130 135 140
 Arg Tyr Gly Val Val Glu Phe Asp Lys Asp Gly Thr Ala Ile Gly Leu
 145 150 155 160
 Glu Glu Lys Pro Gln Gln Pro Lys Ser Asn Tyr Ala Ile Thr Gly Leu
 165 170 175
 Tyr Phe Tyr Asp Asn Asp Val Val Glu Met Ala Lys Ser Leu Thr Pro
 180 185 190
 Ser Glu Arg Gly Glu Leu Glu Ile Thr Asp Ile Asn Arg Ile Tyr Met
 195 200 205
 Gln Gln Gly Arg Leu Ser Val Ala Met Met Arg Arg Gly Tyr Ala Trp
 210 215 220
 Leu Asp Thr Gly Thr His Gln Ser Met Ile Glu Ala Ser Asn Phe Ile
 225 230 235 240
 Ala Thr Ile Glu Glu Arg Gln Gly Leu Lys Val Ser Cys Pro Glu Glu
 245 250 255
 Ile Ala Phe Arg Arg Gly Phe Ile Asp Ala Glu Gln Leu Arg Val Leu
 260 265 270
 Ala Glu Pro Leu Lys Lys Thr Gly Tyr Gly Gln Tyr Leu Leu Asn Leu
 275 280 285
 Thr Lys Gly Leu Val
 290

<210> 7376

<211> 292

<212> PRT

<213> Enterobacter cloacae

<400> 7376

Ala Glu Asn Val Met Lys Lys Val Ala Ile Val Gly Leu Gly Trp Leu
 1 5 10 15
 Gly Met Pro Leu Ala Met Ser Leu Ala Ala Lys Gly Trp Gln Val Thr
 20 25 30
 Gly Ser Lys Thr Thr Arg Asp Gly Val Glu Ala Ala Arg Met Cys Gly
 35 40 45
 Ile Asp Gly Val Glu Leu Arg Leu Glu Pro Glu Leu Ile Cys Asp Thr
 50 55 60
 Asp Glu Leu Asp Glu Leu Met Asn Val Asp Ala Leu Val Ile Thr Leu
 65 70 75 80
 Pro Ala Arg Arg Ser Gly Pro Ser Glu Thr Phe Tyr Leu Gln Ala Val
 85 90 95
 Gln Glu Ile Val Asp Ser Ala Leu Ala His His Ile Pro Arg Ile Ile
 100 105 110
 Phe Thr Ser Ser Thr Ser Val Tyr Gly Ala Ile Asp Gly Thr Ala Lys
 115 120 125
 Glu Asn Thr Glu Arg Arg Pro Val Thr Ala Ser Gly Arg Val Leu Lys
 130 135 140
 Glu Leu Glu Asp Trp Leu His Asn Leu Pro Gly Thr Gln Val Asp Ile
 145 150 155 160

Leu Arg Leu Ala Gly Leu Val Gly Pro Gly Arg His Pro Gly Arg Phe
 165 170 175
 Phe Ala Gly Lys Ser Ala Pro Asp Gly Gln His Gly Val Asn Leu Val
 180 185 190
 His Leu Glu Asp Val Ile Gly Ala Ile Glu Leu Leu Leu Gln Ala Pro
 195 200 205
 Lys Gly Gly His Ile Tyr Asn Ile Cys Ala Pro Ser His Pro Pro Arg
 210 215 220
 Ser Thr Phe Tyr Pro Leu Met Ala Arg Gln Leu Gly Leu Ala Pro Pro
 225 230 235 240
 Val Phe Ser Asp Ala Gln Gly Glu Arg Lys Gly Lys Ile Ile Asp Gly
 245 250 255
 Asn Arg Ile Cys His Glu Leu Gly Phe Glu Tyr Gln Tyr Pro Asp Pro
 260 265 270
 Leu Val Met Pro Thr Glu Tyr Phe Ser Leu Thr Lys Arg Pro Gly Pro
 275 280 285
 Ala Leu Asn Ala
 290

<210> 7377

<211> 483

<212> PRT

<213> Enterobacter cloacae

<400> 7377

Cys Leu Ala Arg Leu Leu Pro Thr Pro Leu Gly Glu Asp Gly Met Ser
 1 5 10 15
 Arg Gln Gln Ile Gly Val Ile Gly Met Ala Val Met Gly Arg Asn Leu
 20 25 30
 Ala Leu Asn Ile Glu Ser Arg Gly Tyr Thr Val Ser Ile Phe Asn Arg
 35 40 45
 Ser Arg Asp Lys Thr Glu Glu Val Ile Ala Glu Asn Pro Gly Lys Lys
 50 55 60
 Leu Val Pro Phe Tyr Thr Val Lys Glu Phe Val Glu Ser Leu Glu Thr
 65 70 75 80
 Pro Arg Arg Ile Leu Leu Met Val Lys Ala Gly Ala Gly Thr Asp Ala
 85 90 95
 Ala Ile Asp Ser Leu Lys Pro Tyr Leu Asp Lys Gly Asp Ile Ile Ile
 100 105 110
 Asp Gly Gly Asn Thr Phe Phe His Asp Thr Ile Arg Arg Asn Arg Glu
 115 120 125
 Leu Ser Ala Glu Gly Phe Asn Phe Ile Gly Thr Gly Val Ser Gly Gly
 130 135 140
 Glu Glu Gly Ala Leu Lys Gly Pro Ser Ile Met Pro Gly Gly Gln Lys
 145 150 155 160
 Glu Ala Tyr Glu Leu Val Ala Pro Ile Leu Thr Lys Ile Ala Ala Val
 165 170 175
 Ala Glu Asp Gly Glu Pro Cys Val Thr Tyr Ile Gly Pro Asp Gly Ala
 180 185 190
 Gly His Tyr Val Lys Met Val His Asn Gly Ile Glu Tyr Gly Asp Met
 195 200 205
 Gln Leu Ile Ala Glu Ala Tyr Ser Leu Leu Lys Gly Gly Leu Asn Leu
 210 215 220
 Ser Asn Glu Glu Leu Ala Glu Thr Phe Thr Glu Trp Asn Lys Gly Glu
 225 230 235 240
 Leu Asn Ser Tyr Leu Ile Asp Ile Thr Lys Asp Ile Phe Thr Lys Lys
 245 250 255
 Asp Glu Glu Gly Lys Tyr Leu Val Asp Val Ile Leu Asp Glu Ala Ala
 260 265 270
 Asn Lys Gly Thr Gly Lys Trp Thr Ser Gln Ser Ser Leu Asp Leu Gly
 275 280 285

Glu Pro Leu Ser Leu Ile Thr Glu Ser Val Phe Ala Arg Tyr Ile Ser
 290 295 300
 Ser Leu Lys Glu Gln Arg Val Ala Ala Ser Lys Val Leu Ser Gly Pro
 305 310 315 320
 Gln Ala Lys Pro Ala Gly Asp Lys Ala Glu Phe Val Glu Lys Val Arg
 325 330 335
 Arg Ala Leu Tyr Leu Gly Lys Ile Val Ser Tyr Ala Gln Gly Phe Ser
 340 345 350
 Gln Leu Arg Ala Ala Ser Asp Glu Asn Asn Trp Asp Leu Asn Tyr Gly
 355 360 365
 Glu Ile Ala Lys Ile Phe Arg Ala Gly Cys Ile Ile Arg Ala Gln Phe
 370 375 380
 Leu Gln Lys Ile Thr Asp Ala Tyr Ala Glu Asn Ala Gly Ile Ala Asn
 385 390 395 400
 Leu Leu Leu Ala Pro Tyr Phe Lys Gln Ile Ala Asp Asp Tyr Gln Gln
 405 410 415
 Ala Leu Arg Asp Val Val Ala Tyr Ala Val Gln Asn Gly Ile Pro Val
 420 425 430
 Pro Thr Phe Ser Ala Ala Val Ala Tyr Tyr Asp Ser Tyr Arg Ala Ala
 435 440 445
 Val Leu Pro Ala Asn Leu Ile Gln Ala Gln Arg Asp Tyr Phe Gly Ala
 450 455 460
 His Thr Tyr Lys Arg Thr Asp Lys Glu Gly Val Phe His Thr Glu Trp
 465 470 475 480
 Leu Asp

<210> 7378

<211> 381

<212> PRT

<213> Enterobacter cloacae

<400> 7378

Cys Pro Arg Thr Ser Glu Ser Ala Tyr Asp Ser Ala Ser Tyr Phe Thr
 1 5 10 15
 Tyr Ile Thr His Leu Ser Asp Ile Thr His Arg Ile Leu Ile Glu Lys
 20 25 30
 Ser Pro Ala Thr Asp Thr Leu Arg Lys Gln Asp Tyr Phe Cys Pro Phe
 35 40 45
 Ser Ser Val Arg Asp Cys Met Thr Gln Asn Asn Asn Ser Leu Val Thr
 50 55 60
 Arg Asn Asn Asp Pro Glu Gln Ile Asp Leu Leu Asp Leu Val Leu Gln
 65 70 75 80
 Leu Trp Arg Gly Lys Trp Val Ile Gly Ala Phe Val Ala Ala Phe Ile
 85 90 95
 Val Leu Ala Val Val Tyr Ile Thr Val Ala Lys Glu Lys Trp Thr Ser
 100 105 110
 Ser Ala Ile Ile Ala Gln Pro Asp Ala Ala Gln Ile Ala Thr Tyr Ser
 115 120 125
 Asn Ala Leu Asn Ile Leu Tyr Gly Gly Ala Ala Pro Ser Met Leu Asp
 130 135 140
 Ile Gln Asn Arg Ala Ile Gly Arg Phe Asn Ser Ser Phe Ser Ala Leu
 145 150 155 160
 Ala Gln Ala Leu Glu Asn Gln Glu Asp Pro Glu Lys Leu Thr Ile Glu
 165 170 175
 Pro Thr Val Lys Gly Gln Ser Leu Pro Leu Thr Val Ser Tyr Gln Gly
 180 185 190
 Glu Ser Ala Asp Ala Ala Gln Lys Gln Leu Ala Gln Tyr Ile Gln Gln
 195 200 205
 Val Asp Glu Gln Thr Ala Lys Glu Leu Thr Leu Asp Leu Arg Asp Asn
 210 215 220

Leu Lys Gln Gln Ile Thr Thr Leu Asn Asp Ser Leu Gln Asn Gln Glu
 225 230 235 240
 Lys Val Ala Gln Glu Gln Lys Asp Leu Arg Ile Lys Gln Ile Ser Glu
 245 250 255
 Ala Tyr Lys Asn Ala Glu Ala Ala Asn Ile Ser Thr Pro Gln Leu Gln
 260 265 270
 Gln Thr Gln Asp Val Thr Gln Glu Thr Met Phe Leu Leu Gly Thr Val
 275 280 285
 Ala Leu Lys Ser Met Ile Asp Asn Glu Ala Ser Arg Pro Leu Val Phe
 290 295 300
 Ser Gly Ala Tyr Tyr Gln Thr Lys Gln Asn Leu Leu Asp Ile Gln Asn
 305 310 315 320
 Leu Asn Val Asn Pro Asp Thr Ile His Val Tyr Arg Tyr Val Met Lys
 325 330 335
 Pro Asn Leu Pro Ile Arg Arg Asp Ser Pro Lys Lys Ala Ile Thr Leu
 340 345 350
 Ile Leu Ala Val Leu Leu Gly Gly Ile Ile Gly Ser Ala Val Val Leu
 355 360 365
 Gly Arg Asn Ala Leu Arg Asn Tyr Lys Pro Arg Ala
 370 375 380

<210> 7379

<211> 328

<212> PRT

<213> Enterobacter cloacae

<400> 7379

Lys Ser Pro Arg Lys Ile Phe Phe Arg Gly Leu Phe Phe Gly Pro His
 1 5 10 15
 Ser Asp Arg Leu Lys Gln Val Asn Glu His Arg Met Leu Asp Asn
 20 25 30
 Ser Arg Leu Arg Ile Ala Ile Gln Lys Ser Gly Arg Leu Ser Asp Asp
 35 40 45
 Ser Arg Glu Leu Leu Ala Arg Cys Gly Ile Lys Ile Asn Leu His Thr
 50 55 60
 Gln Arg Leu Ile Ala Leu Ala Glu Asn Met Pro Ile Asp Ile Leu Arg
 65 70 75 80
 Val Arg Asp Asp Asp Ile Pro Gly Leu Val Met Asp Gly Val Val Asp
 85 90 95
 Leu Gly Ile Ile Gly Glu Asn Val Leu Glu Glu Glu Leu Leu Thr Arg
 100 105 110
 Arg Ala Gln Gly Glu Asp Pro Arg Tyr Phe Thr Leu Arg Arg Leu Asp
 115 120 125
 Phe Gly Gly Cys Arg Leu Ser Leu Ala Thr Pro Val Asp Glu Ala Trp
 130 135 140
 Asp Gly Pro Ala Ala Leu Asn Gly Lys Arg Ile Ala Thr Ser Tyr Pro
 145 150 155 160
 His Leu Leu Lys Arg Tyr Leu Asp Gln Lys Gly Val Gln Phe Lys Ser
 165 170 175
 Cys Leu Leu Asn Gly Ser Val Glu Val Ala Pro Arg Ala Gly Leu Ala
 180 185 190
 Asp Ala Ile Cys Asp Leu Val Ser Thr Gly Ala Thr Leu Glu Ala Asn
 195 200 205
 Gly Leu Arg Glu Val Glu Val Ile Tyr Arg Ser Lys Ala Cys Leu Ile
 210 215 220
 Gln Arg Asp Gly Glu Met Ala Asp Ala Lys Gln His Leu Ile Asp Lys
 225 230 235 240
 Leu Leu Thr Arg Ile Gln Gly Val Ile Gln Ala Arg Glu Ser Lys Tyr
 245 250 255
 Ile Met Met His Ala Pro Thr Glu Arg Leu Glu Glu Val Ile Ala Leu
 260 265 270

Leu Pro Gly Ala Glu Arg Pro Thr Ile Leu Pro Leu Ala Gly Asp Gln
 275 280 285
 Gln Arg Val Ala Met His Met Val Ser Ser Glu Thr Leu Phe Trp Glu
 290 295 300
 Thr Met Glu Lys Leu Lys Ala Leu Gly Ala Ser Ser Ile Leu Val Leu
 305 310 315 320
 Pro Ile Glu Lys Met Met Glu
 325

<210> 7380

<211> 363

<212> PRT

<213> Enterobacter cloacae

<400> 7380

Arg Pro Glu Ser Gly Glu Ser Met Ser Gln Lys Tyr Leu Phe Ile Asp
 1 5 10 15
 Arg Asp Gly Thr Ile Ile Ser Glu Pro Pro Ser Asp Phe Gln Val Asp
 20 25 30
 Arg Phe Asp Lys Leu Ala Phe Glu Pro Asp Val Ile Pro Val Leu Leu
 35 40 45
 Lys Leu Gln Lys Ala Gly Tyr Lys Leu Val Met Ile Thr Asn Gln Asp
 50 55 60
 Gly Leu Gly Thr Asp Ser Phe Pro Gln Ala Asp Phe Asp Gly Pro His
 65 70 75 80
 Asn Leu Met Met Gln Val Leu Thr Ser Gln Gly Ile Ala Phe Asp Glu
 85 90 95
 Val Leu Ile Cys Pro His Met Pro Ala Asp Lys Cys Asp Cys Arg Lys
 100 105 110
 Pro Lys Leu Lys Leu Val Glu Arg Tyr Leu Ala Glu Glu Ala Leu Asp
 115 120 125
 Lys Ala Asn Ser Tyr Val Ile Gly Asp Arg Val Thr Asp Ile Thr Leu
 130 135 140
 Ala Glu Asn Met Gly Ile Ala Gly Leu Arg Tyr Asn Arg Asp Thr Leu
 145 150 155 160
 Asn Trp Ala Met Ile Gly Glu Gln Leu Thr Arg Arg Asp Arg Tyr Ser
 165 170 175
 His Val Glu Arg Asn Thr Lys Glu Thr Gln Ile Asp Val Lys Val Trp
 180 185 190
 Leu Asp Arg Glu Gly Gly Ser Lys Ile His Thr Gly Val Gly Phe Phe
 195 200 205
 Asp His Met Leu Asp Gln Ile Ala Thr His Gly Gly Phe Arg Met Glu
 210 215 220
 Ile Thr Val Lys Gly Asp Leu Tyr Ile Asp Asp His His Thr Val Glu
 225 230 235 240
 Asp Thr Gly Leu Ala Leu Gly Glu Ala Leu Lys Leu Ala Leu Gly Asp
 245 250 255
 Lys Arg Gly Ile Asn Arg Phe Gly Phe Val Leu Pro Met Asp Glu Cys
 260 265 270
 Leu Ala Arg Cys Ala Met Asp Ile Ser Gly Arg Pro His Leu Glu Tyr
 275 280 285
 Lys Ala Asp Phe Thr Tyr Gln Arg Val Gly Asp Leu Ser Thr Glu Met
 290 295 300
 Val Glu His Phe Phe Arg Ser Leu Ser Tyr Thr Met Gly Leu Thr Leu
 305 310 315 320
 His Leu Lys Thr Lys Gly Lys Asn Asp His His Arg Val Glu Ser Leu
 325 330 335
 Phe Lys Ala Phe Gly Arg Thr Leu Arg Gln Ala Ile Arg Val Glu Gly
 340 345 350
 Asp Ala Leu Pro Ser Ser Lys Gly Val Leu
 355 360

<210> 7381
 <211> 311
 <212> PRT
 <213> Enterobacter cloacae

<400> 7381

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Arg Gly Leu Arg Ala Leu Ser Ala Gly Gly Val Ser Val Leu Trp Arg
1      5      10      15
Tyr Arg Arg Pro Gly Gly Tyr Arg Arg Ser Ala Arg Asn Arg Cys Thr
20      25      30
Trp Arg Asp Arg Gly Ser Arg Ala Ala Gly Arg Gln Ile Tyr Gly Lys
35      40      45
Gly Gly Asp Ser Met Leu Ala Lys Arg Ile Ile Pro Cys Leu Asp Val
50      55      60
Arg Asp Gly Gln Val Val Lys Gly Val Gln Phe Arg Asn His Glu Ile
65      70      75      80
Ile Gly Asp Ile Val Pro Leu Ala Lys Arg Tyr Ala Glu Glu Gly Ala
85      90      95
Asp Glu Leu Val Phe Tyr Asp Ile Thr Ala Ser Ser Asp Gly Arg Val
100     105     110
Val Asp Lys Ser Trp Val Ala Arg Val Ala Glu Val Ile Asp Ile Pro
115     120     125
Phe Cys Val Ala Gly Gly Ile Lys Ser Ala Asp Asp Ala Ala Lys Ile
130     135     140
Leu Ser Phe Gly Ala Asp Lys Ile Ser Ile Asn Ser Pro Ala Leu Ala
145     150     155     160
Asp Pro Ala Leu Ile Thr Arg Leu Ala Asp Arg Phe Gly Val Gln Cys
165     170     175
Ile Val Val Gly Ile Asp Thr Trp Phe Asp Thr Ala Thr Gly Lys Tyr
180     185     190
His Val Asn Gln Tyr Thr Gly Asp Glu Ser Arg Thr Arg Val Thr Gln
195     200     205
Trp Glu Thr Leu Asp Trp Val Gln Glu Val Gln Lys Arg Gly Ala Gly
210     215     220
Glu Ile Val Leu Asn Met Met Asn Gln Asp Gly Val Arg Asn Gly Tyr
225     230     235     240
Asp Leu Glu Gln Leu Lys Lys Val Arg Ala Val Cys Gln Val Pro Leu
245     250     255
Ile Ala Ser Gly Gly Ala Gly Thr Met Glu His Phe Leu Gln Ala Phe
260     265     270
Arg Asp Ala Asn Val Asp Gly Ala Leu Ala Ala Ser Val Phe His Lys
275     280     285
Gln Ile Ile Asn Ile Gly Glu Leu Lys Thr Tyr Leu Ala Asp Gln Gly
290     295     300
Val Glu Ile Arg Val Cys
305     310

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<210> 7382
 <211> 380
 <212> PRT
 <213> Enterobacter cloacae

<400> 7382

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Asn Pro Gly Arg Arg Arg Thr Ser Asp Cys Pro Gln Lys Cys Arg Asp
1      5      10      15
Ala Ala Arg Cys Arg Pro Glu Gly Ala Ser Met Asn Ile Glu Glu Leu
20      25      30
Ala Arg Glu Asn Val Arg Arg Leu Thr Pro Tyr Gln Ser Ala Arg Arg
35      40      45
Leu Gly Gly Asn Gly Asp Val Trp Leu Asn Ala Asn Glu Tyr Pro Thr

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| | | |
|---------------------|---------------------|-------------------------|
| 50 | 55 | 60 |
| Pro Val Ala Phe Glu | Leu Ser Gln Gln Thr | Leu Asn Arg Tyr Pro Glu |
| 65 | 70 | 75 |
| Cys Gln Pro Lys Ala | Val Ile Glu Asn Tyr | Ala Gln Tyr Ala Gly Val |
| 85 | 90 | 95 |
| Lys Pro Glu Gln Val | Leu Val Ser Arg Gly | Ala Asp Glu Gly Ile Glu |
| 100 | 105 | 110 |
| Leu Leu Ile Arg Ala | Phe Cys Glu Pro Gly | Lys Asp Ala Val Met Tyr |
| 115 | 120 | 125 |
| Cys Gln Pro Thr Tyr | Gly Met Tyr Ser Val | Ser Ala Glu Thr Phe Gly |
| 130 | 135 | 140 |
| Val Ala Cys Arg Asn | Val Gln Ala Leu Asp | Asn Trp Gln Leu Asp Leu |
| 145 | 150 | 155 |
| Gln Gly Ile Ala Asp | Asn Leu Asp Gly Val | Lys Val Val Phe Val Cys |
| 165 | 170 | 175 |
| Ser Pro Asn Asn Pro | Thr Gly Gln Ile Ile | Asn Pro Gln Asp Ile Arg |
| 180 | 185 | 190 |
| Ala Leu Leu Glu Met | Thr Arg Gly Lys Ala | Leu Val Val Ala Asp Glu |
| 195 | 200 | 205 |
| Ala Tyr Ile Glu Phe | Cys Pro Gln Ala Thr | Leu Ala Gly Trp Leu Glu |
| 210 | 215 | 220 |
| Glu Tyr Pro His Leu | Val Val Leu Arg Thr | Leu Ser Lys Ala Phe Ala |
| 225 | 230 | 235 |
| Leu Ala Gly Leu Arg | Cys Gly Phe Thr Leu | Ala Asn Lys Ala Ile Ile |
| 245 | 250 | 255 |
| Asp Leu Leu Leu Lys | Val Ile Ala Pro Tyr | Pro Leu Ser Thr Pro Val |
| 260 | 265 | 270 |
| Ala Asp Ile Ala Ala | Gln Ala Leu Ala Pro | Gln Gly Ile Ser Ala Met |
| 275 | 280 | 285 |
| Arg Glu Arg Val Ala | Gln Ile Leu Glu Glu | Arg Gln Tyr Leu Val Asp |
| 290 | 295 | 300 |
| Ala Leu Lys Thr Ile | Pro Cys Val Glu Lys | Val Phe Asp Ser Glu Thr |
| 305 | 310 | 315 |
| Asn Tyr Ile Leu Val | Arg Phe Thr Ala Ser | Ser Ala Ile Phe Lys Ser |
| 325 | 330 | 335 |
| Leu Trp Asp Gln Gly | Ile Ile Leu Arg Asp | Gln Asn Lys Gln Pro Thr |
| 340 | 345 | 350 |
| Leu Ser Gly Cys Leu | Arg Ile Thr Val Gly | Thr Arg Ala Glu Ser Gln |
| 355 | 360 | 365 |
| Arg Val Ile Asp Ala | Leu Lys Ala Glu Lys | Val |
| 370 | 375 | 380 |

<210> 7383

<211> 272

<212> PRT

<213> Enterobacter cloacae

<400> 7383

| | | | |
|-----------------|-----------------|-----------------|-----------------|
| Leu Leu Arg Arg | Ala Val Ser Pro | Gly Thr Leu Arg | Cys Arg Arg Cys |
| 1 | 5 | 10 | 15 |
| Ala Thr Ala Glu | Lys Phe Pro Gly | Asp Val Met Ile | Ile Pro Ala Leu |
| 20 | 25 | 30 | |
| Asp Leu Ile Asp | Gly Thr Val Val | Arg Leu His Gln | Gly Asp Tyr Gly |
| 35 | 40 | 45 | |
| Gln Gln Arg Asp | Tyr Gly Asn Asp | Pro Leu Pro Arg | Leu Gln Ala Tyr |
| 50 | 55 | 60 | |
| Ala Ala Glu Gly | Ala Glu Val Leu | His Leu Val Asp | Leu Thr Gly Ala |
| 65 | 70 | 75 | 80 |
| Lys Asp Pro Ala | Lys Arg Gln Ile | Pro Leu Leu Lys | Thr Leu Val Ala |
| 85 | 90 | 95 | |
| Gly Val Asp Val | Pro Val Gln Val | Gly Gly Gly Val | Arg Thr Glu Ala |

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Ala | 100 | Ala | Leu | Leu | Asp | Ala | 105 | Gly | Val | Ala | Arg | Val | 110 | Val | Val | Gly |
| | | 115 | | | | | | 120 | | | | | | 125 | | | | |
| Ser | Thr | Ala | Val | Lys | Asp | Pro | Glu | Ser | Val | Lys | Gly | Trp | Phe | Arg | Arg | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | |
| Phe | Gly | Ala | Asp | Ala | Leu | Val | Leu | Ala | Leu | Asp | Val | Arg | Ile | Asp | Glu | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Gln | Gly | Asn | Lys | Gln | Val | Ala | Val | Ser | Gly | Trp | Gln | Glu | Asn | Ser | Gly | | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | | |
| Val | Thr | Leu | Glu | Leu | Val | Gly | Met | Tyr | Leu | Pro | Val | Gly | Leu | Lys | | | | |
| | | 180 | | | | | 185 | | | | 190 | | | | | | | |
| His | Val | Leu | Cys | Thr | Asp | Ile | Ser | Arg | Asp | Gly | Thr | Leu | Ala | Gly | Ser | | | |
| | 195 | | | | | | 200 | | | | 205 | | | | | | | |
| Asn | Val | Ser | Leu | Tyr | Glu | Glu | Val | Cys | Ala | Arg | Tyr | Pro | Gln | Val | Ala | | | |
| | 210 | | | | | 215 | | | | 220 | | | | | | | | |
| Phe | Gln | Ser | Ser | Gly | Gly | Ile | Gly | Asp | Leu | Ala | Asp | Ile | Ala | Ala | Leu | | | |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 | | | |
| Arg | Gly | Thr | Gly | Val | Arg | Gly | Val | Ile | Val | Gly | Arg | Ala | Leu | Leu | Glu | | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | | |
| Gly | Lys | Phe | Thr | Val | Lys | Glu | Ala | Ile | Gln | Cys | Trp | Gln | Asn | Gly | | | | |
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<210> 7384

<211> 110

<212> PRT

<213> Enterobacter cloacae

<400> 7384

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| Arg | Ile | Thr | Ala | Gly | Gly | Cys | Thr | Ala | Cys | Arg | Phe | Arg | Arg | Ser | Ala |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Asp | Ala | Gly | Ile | His | Glu | Pro | Gly | Gly | Thr | Asp | Lys | Asn | Ala | Arg | Gln |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Gln | Gly | Asn | Val | Phe | Leu | Ala | His | Gln | Thr | Ala | Pro | Val | Asp | Glu |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Arg | Gly | Asn | Leu | Gly | Ser | Leu | Pro | Glu | Cys | Gly | Gln | His | Tyr | Ala | Arg |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Leu | Arg | Gln | Arg | His | Pro | Ala | Gly | Ala | Gly | Gln | Pro | Asp | Trp | Ala | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Leu | Pro | Gln | Arg | His | Gln | Gln | Leu | Leu | Arg | Arg | Asp | Glu | Pro | Pro | Val |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ala | Val | Pro | Leu | Ser | Ala | Gly | Thr | Ala | Ala | Gly | Arg | Ala | | | |
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<210> 7385

<211> 339

<212> PRT

<213> Enterobacter cloacae

<400> 7385

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| Met | Arg | Glu | Ala | Met | Lys | Phe | Leu | Val | Thr | Gly | Ala | Ala | Gly | Phe | Ile |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Gly | Ser | His | Val | Ser | Lys | Arg | Leu | Leu | Asp | Ala | Gly | His | Glu | Val | Val |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Gly | Ile | Asp | Asn | Leu | Asn | Asp | Tyr | Tyr | Asp | Pro | Asn | Leu | Lys | Leu | Ala |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Arg | Leu | Glu | Leu | Leu | Lys | Ser | Glu | Ser | Phe | Thr | Phe | His | Lys | Leu | Asp |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Leu | Ala | Asp | Arg | Lys | Gly | Met | Ala | Val | Leu | Phe | Ala | Asn | Glu | Lys | Phe |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Asp | Arg | Val | Ile | His | Leu | Ala | Ala | Gln | Ala | Gly | Val | Arg | Tyr | Ser | Leu |
| | | | 85 | | | | | 90 | | | | | 95 | | |

Glu Asn Pro His Ala Tyr Ala Asp Ala Asn Leu Val Gly His Leu Asn
 100 105 110
 Val Leu Glu Gly Cys Arg His Asn Lys Val Gln His Leu Leu Tyr Ala
 115 120 125
 Ser Ser Ser Ser Val Tyr Gly Leu Asn Arg Lys Met Pro Phe Ser Thr
 130 135 140
 Asp Asp Ser Val Asp His Pro Val Ser Leu Tyr Ala Ala Thr Lys Lys
 145 150 155 160
 Ala Asn Glu Leu Met Ser His Thr Tyr Ser His Leu Tyr Asn Leu Pro
 165 170 175
 Thr Thr Gly Leu Arg Phe Phe Thr Val Tyr Gly Pro Trp Gly Arg Pro
 180 185 190
 Asp Met Ala Leu Phe Lys Phe Thr Lys Ala Met Ile Glu Gly Asn Ser
 195 200 205
 Ile Asp Val Tyr Asn Tyr Gly Lys Met Lys Arg Asp Phe Thr Tyr Ile
 210 215 220
 Asp Asp Ile Ala Glu Ala Ile Ile Arg Leu Gln Asp Val Ile Pro Gln
 225 230 235 240
 Ala Asp Ala Asp Trp Thr Val Glu Thr Gly Ser Pro Ala Thr Ser Ser
 245 250 255
 Ala Pro Tyr Arg Val Tyr Asn Ile Gly Asn Ser Ser Pro Val Glu Leu
 260 265 270
 Met Asp Tyr Ile Thr Ala Leu Glu Ala Leu Gly Lys Glu Ala Val
 275 280 285
 Lys Asn Met Met Pro Ile Gln Pro Gly Asp Val Leu Glu Thr Ser Ala
 290 295 300
 Asp Thr Lys Ala Leu Tyr Asp Val Ile Gly Phe Lys Pro Gln Thr Ser
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 Val Lys Glu Gly Val Lys Asn Phe Val Asp Trp Tyr Arg Asn Phe Tyr
 325 330 335
 Asn Val

<210> 7386

<211> 442

<212> PRT

<213> Enterobacter cloacae

<400> 7386

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 Ile Ser Ala Ser Glu Ser Ile Thr Arg Thr Val Ala Glu Ile Leu Asp
 35 40 45
 Asn Val Lys Ala Arg Gly Asp Asp Ala Leu Arg Glu Tyr Ser Ala Lys
 50 55 60
 Phe Asp Lys Thr Glu Val Gly Ala Leu Gln Val Thr Glu Gln Glu Ile
 65 70 75 80
 Ile Asp Ala Ser Asn Arg Leu Gly Asp Asp Ile Lys Gln Ala Met Ala
 85 90 95
 Val Ala Val Lys Asn Ile Asp Thr Phe His Thr Ala Gln Lys Leu Gln
 100 105 110
 Ala Val Asp Val Glu Thr Leu Pro Gly Val Arg Cys Gln Gln Val Thr
 115 120 125
 Arg Pro Val Ala Ser Val Gly Leu Tyr Ile Pro Gly Gly Ser Ala Pro
 130 135 140
 Leu Phe Ser Thr Val Leu Met Leu Ala Thr Pro Ala Arg Ile Ala Gly
 145 150 155 160
 Cys Gln Lys Val Val Leu Cys Ser Pro Pro Pro Ile Ala Asp Glu Ile
 165 170 175

Leu Tyr Ala Ala Lys Leu Cys Gly Val Gln Ala Ile Tyr Lys Val Gly
 180 185 190
 Gly Ala Gln Ala Ile Ser Ala Leu Ala Phe Gly Thr Val Ser Ile Pro
 195 200 205
 Lys Val Asp Lys Ile Phe Gly Pro Gly Asn Ala Tyr Val Thr Glu Ala
 210 215 220
 Lys Arg Gln Val Ser Gln Arg Leu Asp Gly Ala Ala Ile Asp Met Pro
 225 230 235 240
 Ala Gly Pro Ser Glu Val Leu Val Ile Ala Asp Ser Gly Ala Thr Pro
 245 250 255
 Asp Phe Val Ala Ser Asp Leu Leu Ser Gln Ala Glu His Gly Pro Asp
 260 265 270
 Ser Gln Val Ile Leu Leu Thr Pro Asp Ala Asp Met Ala Lys Arg Val
 275 280 285
 Gly Asp Ala Val Glu Arg Gln Leu Ala Asp Leu Pro Arg Ala Glu Thr
 290 295 300
 Ala Arg Gln Ala Leu Leu Ala Ser Arg Leu Ile Val Ala Arg Asp Leu
 305 310 315 320
 Asp Gln Cys Ile Ala Ile Ser Asn Gln Tyr Gly Pro Glu His Leu Ile
 325 330 335
 Ile Gln Thr Arg Asn Ala Arg Asp Leu Val Asp Ser Ile Thr Ser Ala
 340 345 350
 Gly Ser Val Phe Leu Gly Asp Trp Ser Pro Glu Ser Ala Gly Asp Tyr
 355 360 365
 Ala Ser Gly Thr Asn His Val Leu Pro Thr Tyr Gly Tyr Thr Ser Thr
 370 375 380
 Cys Ser Ser Leu Gly Leu Ala Asp Phe Gln Lys Arg Met Thr Val Gln
 385 390 395 400
 Glu Leu Ser Arg Glu Gly Phe Ala Ser Leu Ala Ser Thr Ile Glu Thr
 405 410 415
 Leu Ala Ala Ala Glu Arg Leu Thr Ala His Lys Asn Ala Val Thr Leu
 420 425 430
 Arg Val Ala Ala Leu Lys Glu Gln Ala
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<210> 7387

<211> 207

<212> PRT

<213> Enterobacter cloacae

<400> 7387

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 20 25 30
 His Gly Tyr Glu Pro Val Val Ser Arg Asp Pro Asp Val Val Leu Arg
 35 40 45
 Ala Asp Lys Leu Phe Leu Pro Gly Val Gly Thr Ala Gln Ala Ala Met
 50 55 60
 Asp Gln Ile His Glu Arg Glu Leu Val Asp Leu Ile Lys Ala Cys Thr
 65 70 75 80
 Gln Pro Val Leu Gly Ile Cys Leu Gly Met Gln Leu Leu Gly Arg Arg
 85 90 95
 Ser Glu Glu Ser Asn Gly Val Asp Leu Leu Gly Ile Ile Glu Glu Asp
 100 105 110
 Val Pro Lys Met Thr Asp His Gly Leu Pro Leu Pro His Met Gly Trp
 115 120 125
 Asn Arg Val Tyr Pro Lys Ala Gly Asn Arg Leu Phe Gln Gly Ile Glu
 130 135 140
 Asp Gly Ala Tyr Phe Tyr Phe Val His Ser Tyr Ala Met Pro Val Asn
 145 150 155 160

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Tyr | Thr | Ile | Ala | Gln | Cys | Asn | Tyr | Gly | Glu | Ala | Phe | Thr | Ala | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Gln | Lys | Asp | Asn | Phe | Tyr | Gly | Val | Gln | Phe | His | Pro | Glu | Arg | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Ala | Ala | Gly | Ala | Gln | Leu | Leu | Lys | Asn | Phe | Leu | Glu | Met | | |
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<210> 7388

<211> 218

<212> PRT

<213> Enterobacter cloacae

<400> 7388

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| Val | Lys | Asn | Val | Pro | Gly | Arg | Pro | Gly | Arg | Gly | Asp | Gln | Gly | Met | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Glu | Gln | Gln | Gln | Ala | Gln | Leu | Asp | Trp | Glu | Lys | Thr | Asp | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Pro | Val | Val | Val | Gln | His | Ala | Val | Ser | Gly | Glu | Val | Leu | Met | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Tyr | Met | Asn | Gln | Glu | Ala | Leu | Thr | Lys | Thr | Leu | Asp | Ser | Gly | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Thr | Phe | Phe | Ser | Arg | Thr | Lys | Gln | Arg | Leu | Trp | Thr | Lys | Gly | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ser | Gly | His | Phe | Leu | Asn | Val | Val | Ser | Ile | Thr | Pro | Asp | Cys | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Asp | Thr | Leu | Leu | Val | Leu | Val | Asn | Pro | Ile | Gly | Pro | Thr | Cys | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Gly | Thr | Ser | Ser | Cys | Phe | Gly | Glu | Thr | Ser | His | Gln | Trp | Leu | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Tyr | Gln | Leu | Glu | Gln | Leu | Leu | Ala | Glu | Arg | Lys | Ser | Ala | Asp | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Ser | Ser | Tyr | Thr | Ala | Lys | Leu | Tyr | Ala | Ser | Gly | Thr | Lys | Arg | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Gln | Lys | Val | Gly | Glu | Glu | Gly | Val | Glu | Thr | Ala | Leu | Ala | Ala | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | His | Asp | Arg | Glu | Glu | Leu | Thr | Asn | Glu | Ala | Ser | Asp | Leu | Met | Tyr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| His | Leu | Leu | Val | Leu | Leu | Gln | Asp | Gln | Glu | Leu | Asp | Leu | Thr | Thr | Val |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ile | Glu | Asn | Leu | Arg | Lys | Arg | His | Lys | | | | | | | |
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<213> Enterobacter cloacae

<400> 7389

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| Val | Ser | Val | Ile | Trp | Tyr | Leu | Leu | Asn | Ser | Ala | Ser | Thr | Leu | Glu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Tyr | Phe | Pro | Lys | Val | Gln | His | Ala | Thr | Asp | Lys | Met | Ser | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ser | Glu | Tyr | Gln | Asp | Ala | Val | Glu | Ser | Arg | Ser | Val | Leu | Ile | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Lys | Thr | Ala | Glu | Tyr | Leu | Ala | Asn | Pro | Ser | Glu | Arg | His | Gly | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Val | Lys | Gln | Val | Tyr | Pro | Thr | Asn | Gln | Gln | Gln | Val | Ile | Gln | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Met | Ala | Glu | Gln | Gly | Tyr | Met | Val | His | Arg | Val | Ser | Val | Gly | Met | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Phe | Ile | Arg | Met | Pro | Lys | Asn | Ala | Lys | Asp | Asn | Pro | Leu | Gln | Glu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 100 | | | | 105 | | | | 110 | | | | | | |
| Ile | Thr | Asp | Lys | Ala | Lys | Ala | Glu | Ala | Glu | Ser | Thr | Ile | Asp | Lys | Met | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ile | Glu | Arg | Leu | Lys | Val | Arg | Ala | Gly | Glu | Ala | Val | His | Gln | Arg | Asn | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Lys | Ile | Val | Thr | Glu | Ala | Arg | Lys | Ala | Leu | Asp | Ser | Ile | Lys | Ser | Phe | | |
| | 145 | | | | 150 | | | | | 155 | | | | | 160 | | |
| Glu | Ser | Tyr | Leu | Asn | Val | Ile | Val | Thr | Asp | Ser | Glu | Glu | Val | Thr | Glu | | |
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<210> 7390
<211> 853
<212> PRT
<213> Enterobacter cloacae
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| <400> 7390 | | | | | | | | | | | | | | | |
| Asn 1 | Arg | Gly | Gln | Asn 5 | Cys | Arg | Ser | Ala | Val 10 | Phe | Pro | Gln | Pro | Arg 15 | Ala |
| Arg | His | His | Ala 20 | Asp | Ser | Gly | Tyr | Pro 25 | Arg | Pro | Ala | Ala 30 | Gly | Arg | Pro |
| Leu | Arg | Pro 35 | Pro | Pro | Ala | Ala | Gly 40 | Glu | Arg | Tyr | Ser | Ser 45 | Gly | Gly | Ser |
| Met | Ile 50 | Ala | Arg | Trp | Phe | Trp 55 | Arg | Glu | Trp | Arg | Ser 60 | Pro | Ser | Leu | Leu |
| Ile 65 | Val | Trp | Leu | Ala 70 | Leu | Ser | Leu | Ala | Val | Ala 75 | Cys | Val | Leu | Ala 80 | Leu |
| Gly | Ser | Val | Ser 85 | Asp | Arg | Met | Glu | Lys 90 | Gly | Leu | Ser | Gln | Gln 95 | Ser | Arg |
| Glu | Phe | Met 100 | Ala | Gly | Asp | Arg | Ala 105 | Leu | Gln | Ser | Ser | Arg | Pro 110 | Val | Pro |
| Pro | Gly | Trp 115 | Ile | Glu | Glu | Ala 120 | Arg | Lys | Glu | Gly | Leu | Lys 125 | Val | Gly | Glu |
| Gln | Ile 130 | Thr | Phe | Gln | Thr | Met 135 | Thr | Phe | Ala | Gly | Asp 140 | Thr | Pro | Gln | Leu |
| Ala 145 | Ser | Val | Lys | Ala 150 | Val | Asp | Asp | Ile | Tyr | Pro 155 | Met | Tyr | Gly | Asp 160 | Leu |
| Gln | Thr | Ser | Pro 165 | Pro | Gly | Leu | Lys | Pro 170 | Thr | Ala | Gly | Thr | Val 175 | Leu | Leu |
| Ala | Ser | Arg 180 | Leu | Met | Ala | Leu | Leu 185 | Asn | Leu | Lys | Pro | Gly | Asp 190 | Ser | Ile |
| Asp | Val 195 | Gly | Asp | Ala | Thr | Leu | Lys 200 | Ile | Ala | Gly | Glu | Val 205 | Val | Gln | Glu |
| Pro | Asp 210 | Ser | Gly | Phe | Asn 215 | Pro | Phe | Gln | Leu | Ala | Pro 220 | Arg | Leu | Leu | Met |
| Asn 225 | Thr | Ala | Asp | Val 230 | Ala | Lys | Thr | His | Ala 235 | Val | Gln | Pro | Gly | Ser 240 | Arg |
| Val | Thr | Trp | Arg 245 | Tyr | Lys | Phe | Gly | Gly | Thr 250 | Pro | Ala | Gln | Leu | Glu 255 | Ala |
| Tyr | Glu | Lys 260 | Trp | Leu | Leu | Pro | Gln | Leu 265 | Lys | Pro | Glu | His | Arg 270 | Trp | Tyr |
| Gly | Leu | Glu 275 | Gln | Asp | Asp | Gly | Ala 280 | Leu | Gly | Lys | Ser | Leu 285 | Glu | Arg | Ser |
| Gln | Gln 290 | Phe | Leu | Leu | Leu | Ser 295 | Ala | Leu | Leu | Thr | Leu | Leu 300 | Leu | Ala | Ile |
| Ala 305 | Ala | Val | Ala 310 | Val | Ala | Met | Gly | His | Tyr | Cys 315 | Arg | Ser | Arg | Tyr | Asp |
| Leu | Val | Ala | Ile 325 | Leu | Lys | Thr | Leu | Gly | Ala 330 | Gly | Arg | Ala | Gln | Leu 335 | Arg |
| Lys | Leu | Ile | Val | Gly | Gln | Trp | Leu | Met | Val | Leu | Ala | Leu | Ser | Ala | Leu |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | 340 | | | | 345 | | | | 350 | | | | | |
| Thr | Gly | Gly | Ala | Ile | Gly | Leu | Leu | Phe | Glu | Lys | Leu | Leu | Met | Val | Leu | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Leu | Lys | Pro | Val | Leu | Pro | Ala | Ala | Leu | Pro | Pro | Ala | Ser | Leu | Trp | Pro | |
| | | 370 | | | | 375 | | | | | 380 | | | | | |
| Trp | Leu | Trp | Ala | Ile | Gly | Ala | Met | Thr | Thr | Ile | Ser | Leu | Leu | Val | Gly | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Leu | Arg | Pro | Tyr | Arg | Leu | Leu | Leu | Ala | Thr | Gln | Pro | Leu | Arg | Val | Leu | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Arg | Arg | Asp | Val | Val | Ala | Ser | Val | Trp | Pro | Leu | Lys | Phe | Tyr | Leu | Pro | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Val | Ile | Ile | Ala | Val | Ala | Val | Gly | Leu | Leu | Ala | Trp | Leu | Met | Gly | Gly | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Ser | Thr | Leu | Leu | Trp | Ala | Val | Leu | Ala | Gly | Ala | Val | Val | Leu | Ala | Leu | |
| | | 450 | | | | 455 | | | | | 460 | | | | | |
| Leu | Cys | Gly | Val | Val | Gly | Trp | Ile | Leu | Leu | Asn | Val | Leu | Arg | Lys | Leu | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Thr | Val | Lys | Ser | Leu | Pro | Ile | Arg | Leu | Ala | Val | Asn | Arg | Leu | Leu | His | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Gln | Pro | Trp | Ser | Thr | Leu | Ser | Gln | Leu | Ser | Ala | Phe | Ser | Leu | Ser | Phe | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Met | Leu | Leu | Ala | Leu | Leu | Leu | Val | Leu | Arg | Gly | Asp | Leu | Leu | Asp | Arg | |
| | | 515 | | | | | 520 | | | | | 525 | | | | |
| Trp | Gln | Gln | Gln | Leu | Pro | Pro | Glu | Ser | Pro | Asn | Tyr | Phe | Leu | Ile | Asn | |
| | | 530 | | | | 535 | | | | | 540 | | | | | |
| Ile | Ala | Pro | Glu | Gln | Val | Thr | Pro | Leu | Lys | Gly | Phe | Leu | Ser | Glu | His | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | |
| His | Ile | Ile | Pro | Glu | Ser | Phe | Tyr | Pro | Ile | Val | Arg | Ala | Arg | Leu | Thr | |
| | | | | 565 | | | | | 570 | | | | | 575 | | |
| Gln | Ile | Asn | Gly | Gln | Ser | Thr | Glu | Gly | Asn | Lys | Asp | Glu | Ser | Leu | Asn | |
| | | | 580 | | | | | 585 | | | | | 590 | | | |
| Arg | Glu | Leu | Asn | Leu | Thr | Trp | Gln | Ala | Lys | Arg | Pro | Asp | His | Asn | Pro | |
| | | 595 | | | | | 600 | | | | | 605 | | | | |
| Ile | Val | Ala | Gly | Thr | Trp | Pro | Pro | Lys | Ala | Gly | Glu | Val | Ser | Met | Glu | |
| | | 610 | | | | 615 | | | | | 620 | | | | | |
| Glu | Gly | Leu | Ala | Thr | Arg | Leu | Asn | Val | Asn | Leu | Gly | Asp | Ser | Val | Thr | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | |
| Phe | Thr | Gly | Asp | Thr | Gln | Asp | Phe | Thr | Ala | Lys | Val | Thr | Ser | Leu | Arg | |
| | | | | 645 | | | | | 650 | | | | | 655 | | |
| Lys | Val | Asp | Trp | Glu | Ser | Leu | Arg | Pro | Asn | Phe | Phe | Phe | Ile | Phe | Pro | |
| | | | 660 | | | | | 665 | | | | | 670 | | | |
| Pro | Gly | Ala | Leu | Asp | Gly | Gln | Pro | Gln | Ser | Trp | Leu | Thr | Ser | Phe | Arg | |
| | | 675 | | | | | 680 | | | | | 685 | | | | |
| Trp | Glu | Asn | Gly | Asn | Gly | Met | Leu | Thr | Gln | Leu | Asn | Arg | Glu | Phe | Pro | |
| | | | | | | | | | | | | | | | | |

Gly Gly Trp Leu Gly Ser Arg Leu Leu Lys Gly Lys Ala Leu Phe Arg
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 Gln Phe Val Ser
 850

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<211> 245

<212> PRT

<213> Enterobacter cloacae

<400> 7391

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Asn | Gly | Ile | Gly | Met | Asn | Asn | Lys | Lys | Asn | Leu | Leu | Asp | Ile | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Val | Gly | Phe | Arg | Val | Gly | Asp | Asn | Thr | Ile | Leu | Gln | His | Val | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
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| | | 50 | | | | 55 | | | | | 60 | | | | |
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| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Thr | Glu | Gly | Thr | Ile | Leu | Phe | Ala | Gly | Lys | Asp | Ile | Ala | Thr | Phe | Ser |
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| Leu | Phe | Gly | Asp | Thr | Val | Tyr | Asp | Asn | Leu | Val | Phe | Pro | Trp | His | Ile |
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| Phe | Gly | Leu | Ser | Pro | Glu | Thr | Leu | Thr | Lys | Ser | Ile | Ala | Glu | Leu | Ser |
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| Gly | Gly | Glu | Lys | Gln | Arg | Val | Ser | Leu | Ile | Arg | Asn | Leu | Gln | Phe | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
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245

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<211> 247

<212> PRT

<213> Enterobacter cloacae

<400> 7392

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| Gly | Gln | Met | Pro | Ala | Glu | Asn | Ile | Val | Glu | Val | His | Arg | Leu | Lys | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Val | Gly | Gln | Gly | Glu | His | Glu | Leu | Ser | Ile | Leu | Thr | Gly | Val | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Val | Val | Lys | Arg | Ala | Glu | Thr | Ile | Ala | Leu | Ile | Gly | Glu | Ser | Gly |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Gly | Lys | Ser | Thr | Leu | Leu | Ala | Ile | Leu | Ala | Gly | Leu | Asp | Asp | Gly |
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[illegible]

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<400> 7394

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| Gly | Arg | Arg | Ala | Gly | Lys | Trp | Arg | Arg | Leu | Thr | Val | Gly | Glu | His | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Thr | Asn | Glu | Ser | Leu | Ala | Leu | Ser | Met | Val | Leu | Val | Leu | Val | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Val | Val | Ser | Tyr | Arg | Glu | Lys | Leu | Gly | Leu | Glu | Lys | Asp | Ile | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Trp | Ser | Ile | Ala | Arg | Ala | Val | Ile | Gln | Leu | Ile | Ile | Val | Gly | Tyr | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Lys | Tyr | Ile | Phe | Asn | Val | Asn | His | Ala | Val | Leu | Thr | Leu | Leu | Met |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Leu | Phe | Ile | Cys | Phe | Asn | Ala | Ala | Trp | Asn | Ala | Gln | Lys | Arg | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Tyr | Ile | Asp | Lys | Ala | Phe | Ile | Ser | Ser | Leu | Ile | Ala | Ile | Thr | Thr |
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| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Ser | Glu | Gln | Gln | Gln | Leu | Gln | Glu | Lys | Leu | Ser | Leu | Gly | Ala | Thr |
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| Pro | Lys | Val | Ala | Ser | Ala | Arg | Leu | Ile | Arg | Asp | Ser | Ile | Arg | Ser | Ser |
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| Leu | Ile | Pro | Thr | Val | Asp | Ser | Ala | Lys | Thr | Val | Gly | Leu | Val | Ser | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Pro | Gly | Met | Met | Ser | Gly | Leu | Ile | Phe | Ala | Gly | Ile | Asp | Pro | Val | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Ile | Lys | Tyr | Gln | Ile | Met | Val | Thr | Phe | Met | Leu | Leu | Ser | Thr | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Leu | Ser | Thr | Ile | Ile | Ala | Cys | Tyr | Leu | Thr | Tyr | Arg | Lys | Phe | Tyr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
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| Thr | Thr | Ile | Gly | Ala | Ala | Val | Ala | Leu | Ala | Ser | Phe | Ala | Ser | Gln | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ile | Thr | Leu | Leu | Lys | Gln | Asp | Pro | Gln | Ala | Gly | Asn | Pro | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
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| Met | Thr | Gly | Asp | Asp | Gly | Lys | Asn | Gly | Tyr | Lys | Arg | Asn | Gly | Phe | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Gly | Thr | Arg | Phe | Arg | Phe | Ala | Ala | Asp | Tyr | Tyr | Leu | Phe | Asp | Asp |
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| Ile | Ser | Trp | Ile | Thr | Tyr | Tyr | Glu | Leu | Gly | Val | Asn | Ile | Pro | Ala | Gln |
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| Phe | Asn | Trp | Asp | Asn | His | Tyr | Ala | Asp | Gly | Ala | His | Asp | Thr | Ser | Arg |
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| Phe | Gly | Gln | Gln | Asn | Ser | Val | Tyr | Tyr | Asp | Val | Val | Gly | Ala | Lys | Thr |
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| Asp | Ile | Trp | Asp | Tyr | Asp | Met | Ile | Gly | Gln | Ala | Pro | Gly | Asn | Gly | Ile |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asn | Gly | Asp | Tyr | Asp | Gly | Ser | Tyr | Arg | Ser | Arg | Gln | Met | Leu | Lys | Tyr |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Lys | Lys | Thr | Val | Gly | Asp | Ala | Asp | Ile | Tyr | Ala | Ser | Tyr | Leu | Phe | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Ser | Glu | Tyr | Leu | Pro | Gly | Asn | Gly | Leu | Arg | Tyr | Lys | Arg | Lys | Gly |
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| Gly | Ala | Ala | Trp | Asn | Tyr | Thr | Arg | Ala | Asp | Met | Arg | Asn | Pro | Asp | Asn |
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| Gly | Asp | Ser | Lys | Ser | Tyr | Asp | Gln | Asn | Ile | Leu | Gly | Thr | Ala | Leu | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Trp | Thr | Pro | Asp | Asn | Trp | Thr | Phe | Ser | Ala | Gly | Gly | Gly | Trp | Tyr | Gln |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asn | Phe | Leu | Thr | Thr | Lys | Lys | Val | Ser | Val | Asn | Asp | Tyr | Phe | Ala | Gly |
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| Asp | Ala | Trp | Gly | Ile | Glu | Tyr | Phe | Ala | Gly | Tyr | Lys | Phe | Pro | Val | Gly |
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| Gln | Tyr | Ala | Val | Lys | Ser | Ile | Gln | Pro | Tyr | Phe | Met | Gly | Asp | Arg | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Glu | Tyr | Val | Asn | Gly | Arg | Asn | Tyr | Gln | Arg | Ile | Asp | Asn | Gly | Val | Gly |
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| Ile | Ser | Phe | Gln | Leu | Asp | Tyr | Gly | Phe | Arg | Val | Asp | Tyr | Glu | His | Val |
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| Phe | Thr | Ser | Cys | Thr | Asp | Asn | Leu | Gly | Asp | Met | Asn | Leu | Val | Arg | Leu |
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<213> Enterobacter cloacae

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| Gly | Tyr | Tyr | Lys | Glu | Gln | Thr | Ile | His | Thr | Arg | Val | Tyr | Met | Glu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Met | Leu | Lys | Ile | Phe | Asn | Thr | Met | Thr | Arg | Gln | Lys | Glu | Glu | Phe |
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| Lys | Pro | Ile | His | Ala | Gly | Glu | Val | Gly | Met | Tyr | Val | Cys | Gly | Ile | Thr |
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| Val | Tyr | Asp | Leu | Cys | His | Ile | Gly | His | Gly | Arg | Thr | Phe | Val | Ala | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Asp | Val | Val | Ser | Arg | Tyr | Leu | Arg | Phe | Leu | Gly | Tyr | Asn | Leu | Lys | Tyr |
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| Val | Arg | Asn | Ile | Thr | Asp | Ile | Asp | Asp | Lys | Ile | Ile | Lys | Arg | Ala | Asn |
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| Glu | Asn | Gly | Glu | Ser | Phe | Val | Ala | Leu | Val | Asp | Arg | Met | Ile | Ala | Glu |
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Met His Lys Asp Phe Asp Ala Leu Asn Ile Leu Arg Pro Asp Ser Glu
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 Pro Arg Ala Thr His His Ile His Glu Ile Ile Asp Ile Thr Gln Lys
 180 185 190
 Leu Ile Glu Arg Gly His Ala Tyr Val Ala Asp Asn Gly Asp Val Met
 195 200 205
 Phe Ser Val Pro Thr Asp Pro Thr Tyr Gly Ala Leu Ser Arg Gln Asp
 210 215 220
 Leu Asp Gln Leu Gln Ala Gly Ala Arg Val Asp Val Val Asp Val Lys
 225 230 235 240
 Arg Asn Pro Met Asp Phe Val Leu Trp Lys Met Ser Lys Ala Gly Glu
 245 250 255
 Pro Ser Trp Pro Ser Pro Trp Gly Glu Gly Arg Pro Gly Trp His Ile
 260 265 270
 Glu Cys Ser Ala Met Asn Cys Lys Gln Leu Gly Asn His Phe Asp Ile
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 His Gly Gly Gly Ser Asp Leu Met Phe Pro His His Glu Asn Glu Ile
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 Gly Asn Phe Phe Thr Val Arg Asp Val Leu Lys Tyr Tyr Asp Ala Glu
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 Tyr Ser Glu Glu Asn Leu Lys Gln Ala Arg Ala Ala Leu Glu Arg Leu
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 Tyr Thr Ala Leu Arg Gly Thr Asp Lys Ser Val Pro Ala Ala Gly Gly
 385 390 395 400
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 405 410 415
 Thr Pro Glu Ala Tyr Ser Val Leu Phe Asp Met Ala Arg Glu Val Asn
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 Arg Leu Lys Ser Glu Asp Met Ala Ala Ala Asn Ala Leu Ala Ser His
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 Leu Arg Lys Leu Ser Ser Val Leu Gly Leu Leu Glu Gln Glu Pro Asp
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 465 470 475 480
 Ile Glu Ala Leu Ile Lys Ala Arg Leu Glu Ala Arg Gln Ala Lys Asp
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<212> PRT

<213> Enterobacter cloacae

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 Ala Gly Leu Leu Leu Ala Phe Gly Asp Lys Phe His Leu Pro Leu Met
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| | | | | | | | | | | | | | | | |
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| Ile | Gly | Ser | Ala | Val | Gly | Leu | Ala | Ser | Glu | Ser | Gly | Ile | Ala | Ala | Leu |
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| Ser | Ala | Ala | Val | Ser | Val | Phe | Val | Thr | Asn | Ile | Thr | Ile | Ser | Thr | Val |
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| Leu | Ser | Ile | Thr | Pro | Glu | Met | Ala | Ser | Gln | Gly | Gly | Lys | Tyr | Ala | Met |
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| Leu | Pro | Glu | Phe | Leu | Gly | Phe | Phe | Ser | Gly | Lys | Arg | Phe | Val | Ala | Ile |
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| Ala | Thr | Ala | Phe | Leu | Ser | Phe | Leu | Leu | Gly | Leu | Leu | Leu | Pro | Tyr | Val |
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| Tyr | Ser | Phe | Gly | Asp | Tyr | Thr | Thr | Gln | Ala | Gly | Gln | Val | Ile | His | Gly |
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| Asp | Gln | Thr | Ile | Trp | Phe | Lys | Met | Leu | Glu | Glu | Gly | Val | Lys | Ser | Phe |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Ser | Ser | Asp | Thr | Tyr | Gln | Asn | Ala | Gly | Lys | Phe | Met | Gln | Gly | Glu | Phe |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Pro | Leu | Met | Leu | Phe | Ala | Leu | Pro | Ala | Ala | Cys | Leu | Ala | Met | Tyr | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Glu | Ala | His | Thr | Lys | Asn | Lys | Lys | Ile | Ala | Ala | Gly | Ile | Leu | Phe | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Ala | Leu | Thr | Cys | Phe | Leu | Thr | Gly | Ile | Thr | Glu | Pro | Val | Glu | Phe |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Thr | Phe | Ile | Phe | Val | Ala | Pro | Ile | Leu | Tyr | Val | Phe | Asn | Ala | Ile | Met |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Gly | Leu | Ala | Tyr | Met | Thr | Met | Tyr | Leu | Leu | His | Ala | His | Ile | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Ser | Phe | Ser | Ala | Gly | Phe | Ile | Asp | Tyr | Leu | Ser | Phe | Gly | Ile | Leu |
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| Pro | Ser | Phe | Asn | Gly | Tyr | Gln | Thr | Asn | Phe | Leu | Ser | Ala | Ile | Ile | Val |
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| Gly | Ile | Pro | Met | Ala | Leu | Ile | Tyr | Tyr | Phe | Thr | Phe | Arg | Phe | Val | Ile |
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| Ala | Asn | Asp | Lys | Ser | Asp | Ser | Glu | Leu | Ala | Thr | Glu | Ile | Ile | Gly | Leu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Leu | Gly | Gly | Ala | Gln | Asn | Ile | Asp | Ser | Val | Gly | Ser | Cys | Ile | Thr | Arg |
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| Leu | Arg | Leu | Glu | Val | Ala | Asn | Ser | Glu | Ala | Val | Asp | Arg | Asp | Gly | Leu |
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| Asn | Gly | Leu | Gly | Ala | Arg | Gly | Val | Val | Phe | Val | Gly | Asp | Asn | Gly | Ile |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Gln | Val | Ile | Phe | Gly | Ala | Arg | Ala | Gln | Phe | Ile | Ala | Gln | Thr | Met | Ser |
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| Leu | Pro | Asp | Ala | Asp | Val | Leu | Ala | Phe | Lys | Phe | Gly | Val | Ala | Tyr | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
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| Val | Val | Pro | Ile | Leu | Cys | Val | Leu | Ala | Gly | Arg | Arg | Trp | Phe | Arg | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Leu | Thr | Arg | Cys | Trp | Leu | Phe | Leu | Thr | Val | Ser | Leu | Leu | Ser | His |
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| Ser | Leu | Leu | Asp | Ser | Ile | Thr | Thr | Gly | Gly | Lys | Gly | Val | Gly | Trp | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Trp | Pro | Trp | Ser | Asp | Glu | Arg | Phe | Phe | Ala | Pro | Trp | Gln | Val | Ile | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Ala | Pro | Phe | Ala | Leu | Ser | Arg | Tyr | Thr | Thr | Pro | Tyr | Gly | His | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Ile | Ile | Ser | Glu | Leu | Leu | Trp | Val | Trp | Leu | Pro | Gly | Met | Val | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Met | Gly | Met | Leu | Trp | Trp | Arg | Lys | Arg | Ala | Arg | | | | | |
| | | | 180 | | | | | 185 | | | | | | | |

<210> 7399

<211> 215

<212> PRT

<213> Enterobacter cloacae

<400> 7399

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Ser | Arg | Phe | Asn | Pro | Pro | Arg | Leu | Phe | Ala | His | Phe | Pro | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Gln | Pro | Phe | Ser | Leu | Pro | Val | Leu | His | Ala | Ile | Leu | Cys | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ser | Ser | Val | Phe | Arg | Thr | Thr | Gly | Val | Leu | Arg | Arg | Met | Ser | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Asn | Asn | Pro | Ala | Arg | Val | Ala | Ile | Val | Met | Gly | Ser | Lys | Ser | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Ala | Thr | Met | Gln | Phe | Ala | Ala | Glu | Ile | Phe | Glu | Ile | Leu | Asn | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | His | His | Val | Glu | Val | Val | Ser | Ala | His | Arg | Thr | Pro | Asp | Lys | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Ser | Phe | Ala | Glu | Ser | Ala | Glu | Glu | Asn | Gly | Tyr | Glu | Val | Ile | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gly | Ala | Gly | Gly | Ala | Ala | His | Leu | Pro | Gly | Met | Ile | Ala | Ala | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Val | Pro | Val | Leu | Gly | Val | Pro | Val | Gln | Ser | Ala | Ala | Leu | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Val | Asp | Ser | Leu | Tyr | Ser | Ile | Val | Gln | Met | Pro | Arg | Gly | Ile | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Gly | Thr | Leu | Ala | Ile | Gly | Lys | Ala | Gly | Ala | Ala | Asn | Ala | Ala | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ala | Ala | Gln | Ile | Leu | Ala | Thr | His | Asp | Lys | Glu | Leu | His | Gln | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Ala | Glu | Trp | Arg | Lys | Ala | Gln | Thr | Asp | Glu | Val | Leu | Asp | Asn | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |

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Asp Pro Arg Gly Ala Ala
210 215

<210> 7400

<211> 99

<212> PRT

<213> Enterobacter cloacae

<400> 7400

Arg Ile Pro Phe Thr Ser Arg Arg Arg Ser Gln Arg Ala Ala Ser
1 5 10 15
Cys Gly Ser Trp Val Thr Arg Ile Ser Val Val Pro Cys Ser Arg Leu
20 25 30
Arg Glu Asn Ser Arg Ser Ala Ile Leu Ser Pro Val Leu Arg Ser Arg
35 40 45
Leu Pro Val Gly Ser Ser Ala Asn Ser Thr Ser Gly Arg Pro Leu Asn
50 55 60
Ala Leu Ala Ser Ala Thr Arg Cys Cys Ser Pro Pro Glu Ser Cys Ala
65 70 75 80
Gly Arg Trp Ser Arg Arg Phe Pro Ser Pro Ser Cys Ser Ser Asn Ala
85 90 95
Phe Ala

<210> 7401

<211> 271

<212> PRT

<213> Enterobacter cloacae

<400> 7401

Ile Met Thr Arg Gln Thr Ala Glu Asn Leu Thr Gly Lys Val Met Gln
1 5 10 15
Lys Ser Val Leu Ile Thr Gly Cys Ser Ser Gly Ile Gly Leu Glu Ser
20 25 30
Ala Leu Glu Leu Lys Arg Gln Gly Phe Trp Val Leu Ala Ala Cys Arg
35 40 45
Lys Pro Glu Asp Val Glu Arg Met Arg Gly Leu Gly Phe Thr Gly Ile
50 55 60
Leu Leu Asp Leu Asp Ser Pro Glu Ser Val Glu Gln Ala Ala Asp Glu
65 70 75 80
Val Ile Ala Leu Thr Asn Asn Arg Leu Tyr Gly Leu Phe Asn Asn Ala
85 90 95
Gly Tyr Gly Val Tyr Gly Pro Leu Gln Thr Leu Ser Arg Glu Gln Leu
100 105 110
Glu Gln Gln Phe Ser Ala Asn Phe Phe Gly Ala His Gln Leu Thr Met
115 120 125
Arg Leu Leu Pro Ala Met Leu Pro His Gly Glu Gly Arg Ile Val Met
130 135 140
Thr Ser Ser Val Met Gly Leu Ile Ser Thr Pro Gly Arg Gly Ala Tyr
145 150 155 160
Ala Ala Ser Lys Tyr Ala Leu Glu Ala Trp Ser Asp Ala Leu Arg Met
165 170 175
Glu Leu Arg His Ser Gly Ile Lys Val Ser Leu Ile Glu Pro Gly Pro
180 185 190
Ile Arg Thr Arg Phe Thr Glu Asn Val Asn Gln Thr Gln Ala Asp Lys
195 200 205
Pro Val Glu Asn Pro Gly Ile Ala Ala Arg Phe Thr Leu Gly Pro Glu
210 215 220
Ala Val Val Ala Lys Val Arg His Ala Phe Glu Ser Asp Thr Pro Lys
225 230 235 240
Met Arg Tyr Pro Val Thr Leu Val Thr His Ala Val Gly Trp Leu Lys

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 245 | | | | | 250 | | | | 255 |
| Arg | Leu | Leu | Pro | Gly | Arg | Met | Met | Asp | Lys | Ile | Leu | Gln | Gly |
| | | | 260 | | | | | 265 | | | | | 270 |

<210> 7402

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 7402

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| Arg | Phe | Ala | Pro | Arg | Ile | Pro | Asn | Gly | Ala | Phe | Tyr | Phe | Cys | Gln | Ser |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Gly | Ser | His | Leu | Phe | Thr | Gly | Ala | Lys | Ser | Cys | Ser | Leu | Ala | Asp | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Phe | Asn | Lys | Tyr | Ala | Val | Phe | Ser | Leu | Arg | His | Ala | Lys | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Val | Phe | Met | Leu | Ile | Val | Val | Pro | Val | Ile | Ile | Phe | Val | Ala | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Phe | Val | Gly | Ala | Gly | Val | Lys | Ile | Val | Pro | Gln | Gly | Tyr | Gln | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Val | Glu | Arg | Phe | Gly | Arg | Tyr | Thr | Asn | Thr | Leu | Gln | Pro | Gly | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Leu | Ile | Val | Pro | Phe | Met | Asp | Arg | Ile | Gly | Arg | Lys | Ile | Asn | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Glu | Gln | Val | Leu | Asp | Ile | Pro | Ser | Gln | Glu | Val | Ile | Ser | Lys | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Ala | Asn | Val | Thr | Ile | Asp | Ala | Val | Cys | Phe | Ile | Gln | Val | Ile | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Pro | Lys | Ala | Ala | Tyr | Glu | Val | Ser | Asn | Leu | Glu | Leu | Ala | Ile | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Leu | Thr | Met | Thr | Asn | Val | His | Asn | Lys | Tyr | Ala | Ser | Leu | Lys | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |

<210> 7403

<211> 114

<212> PRT

<213> Enterobacter cloacae

<400> 7403

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Cys | Arg | Ser | Ala | Arg | Ile | Leu | Tyr | Tyr | Ser | Gly | Pro | Gly | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Pro | Asp | Asp | Gly | Ser | Asn | Thr | Asp | Ser | Glu | Tyr | Leu | Ala | Gly | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gly | Val | Ser | Arg | Arg | Arg | Gly | Arg | Val | Ile | Met | Ala | Thr | Phe | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Lys | His | Pro | His | Val | Glu | Leu | Cys | Asp | Leu | Leu | Lys | Leu | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Trp | Ser | Glu | Ser | Gly | Ala | Gln | Ala | Lys | Ile | Val | Ile | Ala | Asp | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gln | Val | Thr | Val | Asp | Gly | Ala | Val | Glu | Thr | Arg | Lys | Arg | Cys | Lys | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Ala | Gly | Gln | Thr | Val | Ser | Phe | Ala | Gly | Gln | Ser | Val | Thr | Val | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | | | | | | | | | | | | | | | |

<210> 7404

<211> 292

<212> PRT

<213> Enterobacter cloacae

<400> 7404

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Thr Asp Lys Arg Glu Cys Arg Met Ser Val Gln Asn Ile Val Asn Ile
1      5      10      15
Thr Glu Ala Asn Leu Gln Gln Thr Leu Glu Gln Ser Met Thr Lys Pro
20     25     30
Val Leu Phe Tyr Phe Trp Ser Glu Arg Ser Gln His Cys Leu Gln Leu
35     40     45
Thr Pro Val Leu Glu Ser Leu Ala Ala Gln Tyr Asn Gly Gln Phe Ile
50     55     60
Leu Ala Lys Leu Asp Cys Asp Ala Glu Pro Met Val Ala Ser Gln Phe
65     70     75     80
Gly Leu Arg Ala Ile Pro Thr Val Tyr Leu Phe Gln Asn Gly Gln Pro
85     90     95
Val Asp Gly Phe Gln Gly Pro Gln Pro Glu Glu Ala Ile Arg Ala Leu
100    105    110
Leu Asp Lys Val Leu Pro Arg Glu Glu Glu Leu Lys Ala Gln Glu Ala
115    120    125
Met Ala Leu Met Gln Glu Gly Lys Tyr Asp Glu Ala Leu Pro Leu Leu
130    135    140
Lys Asp Ala Trp Gln Leu Ser Asn Gln Asn Ser Gln Ile Gly Leu Leu
145    150    155    160
Leu Ala Glu Thr Gln Ile Ala Leu His Arg Pro Glu Asp Ala Glu Ala
165    170    175
Val Leu Lys Thr Val Pro Met Gln Asp Gln Asp Thr Arg Tyr Gln Gly
180    185    190
Leu Val Ala Gln Ile Asp Leu Leu Lys Gln Ala Ala Asp Thr Pro Glu
195    200    205
Ile Gln Gln Leu Gln Gln Gln Val Ala Asp Asn Pro Gln Asp Ala Ala
210    215    220
Leu Ala Ser Gln Leu Ala Leu Gln Leu His Gln Val Gly Arg Asn Glu
225    230    235    240
Glu Ala Leu Glu Leu Leu Phe Ser His Leu Gln Lys Asp Leu Gly Ala
245    250    255
Ala Asp Gly Gln Ala Arg Lys Met Phe Gln Glu Ile Leu Ala Ala Leu
260    265    270
Gly Thr Gly Asp Ala Leu Ala Ser Lys Tyr Arg Arg Gln Leu Tyr Ala
275    280    285
Leu Leu Tyr
290

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<210> 7405

<211> 83

<212> PRT

<213> Enterobacter cloacae

<400> 7405

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Ser Leu Gly Ser Ala Asn Arg Val Leu Phe Gly Gly Glu Trp Ile Lys
1      5      10      15
Glu Gly Ala Leu Val Val Asp Val Gly Ile Asn Arg Leu Glu Asn Gly
20     25     30
Lys Val Val Gly Asp Val Val Tyr Glu Asp Ala Ala Ala Arg Ala Ser
35     40     45
Tyr Ile Thr Pro Val Pro Gly Gly Val Gly Pro Met Thr Val Ala Thr
50     55     60
Leu Ile Gln Asn Thr Leu Gln Ala Cys Glu Glu Tyr His Asp Val Glu
65     70     75     80
Asp Ala

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<210> 7406
 <211> 391
 <212> PRT
 <213> Enterobacter cloacae

<400> 7406

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asp | Thr | Gly | Asp | Phe | Arg | Gly | Gln | Ser | Thr | Val | Tyr | Arg | Pro | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Val | Tyr | Asp | Asp | Trp | Gln | Ile | Ile | Arg | Cys | Leu | Lys | Glu | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Val | Arg | Trp | Gly | Ser | Pro | Leu | Ile | Trp | Leu | Ile | Ile | Gly | Lys | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Gly | Ala | Val | Leu | Lys | Lys | Val | Ser | Ile | Ile | Asp | Val | Ala | Lys | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Gly | Val | Ser | Val | Ser | Thr | Val | Ser | Leu | Val | Leu | Arg | Gln | Lys | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Ile | Ser | Glu | Ala | Thr | Ile | Gly | Lys | Val | Asn | Ala | Ala | Ile | Thr | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Gly | Tyr | Val | His | Asn | Val | Ala | Ala | Ala | Asn | Leu | Arg | Ala | Asn | Thr |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Ser | Asn | Leu | Ile | Gly | Leu | Ile | Leu | Arg | Asp | Phe | Ser | Asp | Ser | Phe | Ser |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ile | Lys | Val | Met | Ala | Ser | Ile | Val | Gln | Glu | Leu | Glu | Lys | Gln | Gly | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Val | Phe | Leu | Gly | Gln | Pro | Leu | Asn | Asp | Gly | Glu | His | Leu | Glu | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Leu | Leu | Thr | Phe | Lys | Gln | Gln | Gly | Val | Ala | Gly | Val | Ile | Tyr | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Ser | Asp | Thr | Arg | Thr | Ala | Ser | Leu | Pro | Glu | His | Ile | Arg | His | Cys |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Pro | Leu | Pro | Leu | Val | Ala | Val | Ser | Gln | Ser | Leu | Leu | Glu | Glu | Lys | Cys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asn | Leu | Val | Met | Arg | Asp | Asn | Arg | Gln | Ala | Ala | Asn | Leu | Ala | Ala | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Tyr | Leu | Ile | Glu | Arg | Gly | His | Arg | Thr | Ile | Ala | Tyr | Ile | Gly | Gly | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Gly | Cys | Arg | Ile | Arg | Glu | Gln | Arg | Leu | Leu | Gly | Phe | Arg | Ser | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Met | Thr | Gln | Asn | Gly | Leu | Ile | Trp | Arg | Glu | Glu | Tyr | Ser | Pro | Ala | Cys |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Thr | Asp | Asp | Thr | Gln | Ala | Ala | Ala | Met | Ala | Thr | Arg | Gln | Leu | Leu | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Lys | Asn | Asn | Thr | Ile | Thr | Ala | Leu | Leu | Cys | His | Ser | Pro | Asp | Ala | Met |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Gly | Ser | Ile | Ser | Gly | Ile | His | Gln | Val | Gly | Arg | Thr | Val | Gly | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Val | Phe | Leu | Thr | Gln | Gln | Val | Ala | Leu | Ile | Gly | Phe | Glu | Asp | Met |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | His | Val | Asn | Leu | Thr | Ser | Pro | Ser | Leu | Thr | Tyr | Val | Ser | Ser | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Glu | Glu | Thr | Gly | Arg | Gln | Ala | Ala | Gly | Leu | Met | Ile | Arg | Arg | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Glu | Pro | Asp | Leu | Gln | Thr | Gln | Arg | Ile | Thr | Leu | Ser | Gly | Gln | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ile | Ala | Arg | Glu | Ser | Ala | | | | | | | | | | |
| 385 | | | | | 390 | | | | | | | | | | |

<210> 7407
 <211> 186
 <212> PRT
 <213> Enterobacter cloacae

<400> 7407

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Pro | Ile | Cys | Asp | Pro | Ser | Thr | Gly | Arg | Arg | Thr | Thr | Ile | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Gln | Asp | Ala | Lys | Met | Val | Thr | Phe | His | Thr | Asn | His | Gly | Asp | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ile | Lys | Thr | Phe | Asp | Asp | Lys | Ala | Pro | Glu | Thr | Val | Lys | Asn | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Asp | Tyr | Cys | Arg | Glu | Gly | Phe | Tyr | Asn | Asn | Thr | Ile | Phe | His | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ile | Asn | Gly | Phe | Met | Ile | Gln | Gly | Gly | Gly | Phe | Glu | Pro | Gly | Met |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Arg | Gln | Lys | Glu | Thr | Lys | Glu | Ala | Ile | Lys | Asn | Glu | Ala | Asn | Asn | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Lys | Asn | Thr | Arg | Gly | Thr | Leu | Ala | Met | Ala | Arg | Thr | Gln | Ala | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Ser | Ala | Thr | Ala | Gln | Phe | Phe | Ile | Asn | Val | Ala | Asp | Asn | Asp | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Asn | Phe | Ser | Gly | Glu | Ser | Leu | Gln | Gly | Trp | Gly | Tyr | Cys | Val | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Glu | Val | Val | Glu | Gly | Met | Asp | Val | Val | Asp | Lys | Ile | Lys | Ala | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Thr | Gly | Arg | Ser | Gly | Met | His | Gln | Asp | Val | Pro | Lys | Glu | Asp | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Ile | Thr | Ser | Val | Thr | Val | Ser | Glu | | | | | | | |
| | | | 180 | | | | | 185 | | | | | | | |

<210> 7408

<211> 242

<212> PRT

<213> Enterobacter cloacae

<400> 7408

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Ala | Thr | Leu | Phe | Ile | Ala | Asp | Leu | His | Leu | Gln | Thr | Glu | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Ala | Ile | Thr | Ala | Gly | Phe | Leu | Arg | Phe | Leu | Arg | Gly | Glu | Ala | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Ala | Asp | Ala | Leu | Tyr | Ile | Leu | Gly | Asp | Leu | Phe | Glu | Ala | Trp | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Asp | Asp | Asp | Pro | Asn | Pro | Leu | His | Arg | Glu | Met | Ala | Ala | Ala | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Thr | Leu | Val | Asp | Ser | Gly | Val | Pro | Cys | Tyr | Phe | Ile | His | Gly | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Arg | Asp | Phe | Leu | Ile | Gly | Gln | Arg | Tyr | Ala | Arg | Glu | Ser | Gly | Met | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Leu | Pro | Glu | Glu | Gln | Val | Leu | Asn | Leu | Tyr | Gly | Arg | Asn | Ile | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Met | His | Gly | Asp | Thr | Leu | Cys | Thr | Asp | Asp | Thr | Gly | Tyr | Leu | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Arg | Ala | Lys | Val | His | Thr | Pro | Trp | Ile | Gln | Lys | Val | Phe | Leu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Pro | Leu | Phe | Ile | Arg | Asn | Arg | Ile | Ala | Ala | Arg | Met | Arg | Ala | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Lys | Ala | Ala | Asn | Ser | Ser | Lys | Ser | Met | Thr | Ile | Met | Asp | Val | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Gln | Ala | Val | Val | Lys | Val | Met | Glu | Lys | His | Arg | Val | Gln | Trp | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | His | Gly | His | Thr | His | Arg | Pro | Asp | Val | His | Ser | Leu | Ile | Ala | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Glu | Pro | Ala | His | Arg | Val | Val | Leu | Gly | Ala | Trp | His | Ser | Glu | Gly |
| | 210 | | | | | 215 | | | | | | 220 | | | |

Ser Met Val Lys Val Thr Pro Glu Gly Val Glu Leu Ile Ala Phe Pro
 225 230 235 240
 Phe

<210> 7409

<211> 363

<212> PRT

<213> Enterobacter cloacae

<400> 7409

Pro Gly Ser Ala Gly Cys Ser Met Lys Gln Val Cys Val Leu Gly Asn
 1 5 10 15
 Gly Gln Leu Gly Arg Met Leu Arg Gln Ala Gly Glu Pro Leu Gly Ile
 20 25 30
 Ala Val Trp Pro Val Gly Leu Asp Ala Glu Pro Glu Ala Val Pro Phe
 35 40 45
 His Gln Ser Val Ile Thr Ala Glu Ile Glu Arg Trp Pro Glu Thr Ala
 50 55 60
 Leu Thr Arg Glu Leu Ala Arg His Asn Ala Phe Val Asn Arg Asp Val
 65 70 75 80
 Phe Pro Ile Ile Ala Asp Arg Leu Thr Gln Lys Gln Leu Phe Asp Lys
 85 90 95
 Leu Gly Leu Ala Thr Ala Pro Trp Gln Leu Leu Ser Asp Lys Arg Glu
 100 105 110
 Trp Asp Asp Val Phe Ala Met Leu Gly Asp Leu Ala Ile Val Lys Arg
 115 120 125
 Arg Val Gly Gly Tyr Asp Gly Arg Gly Gln Trp Arg Leu Arg Ala Asn
 130 135 140
 Asp Thr Ala Glu Leu Pro Asp Asp Cys Tyr Gly Glu Cys Ile Val Glu
 145 150 155 160
 Gln Gly Ile Asn Phe Ser Gly Glu Val Ser Leu Val Gly Ala Arg Gly
 165 170 175
 His Asp Gly His Thr Val Phe Tyr Pro Leu Thr His Asn Leu His Gln
 180 185 190
 Asp Gly Ile Leu Arg Thr Ser Val Ala Phe Pro Gln Ala Asn Ala Asp
 195 200 205
 Gln Gln Ala Gln Ala Glu Glu Met Leu Ser Ala Ile Met His Glu Leu
 210 215 220
 Gly Tyr Val Gly Val Met Ala Met Glu Cys Phe Val Thr Pro Ser Gly
 225 230 235 240
 Leu Leu Ile Asn Glu Leu Ala Pro Arg Val His Asn Ser Gly His Trp
 245 250 255
 Thr Gln Asn Gly Ala Ser Ile Ser Gln Phe Glu Leu His Leu Arg Ala
 260 265 270
 Ile Thr Asp Leu Pro Leu Pro Gln Pro Val Val Thr Ser Pro Ser Val
 275 280 285
 Met Ile Asn Leu Ile Gly Thr Asp Leu Asn Tyr Asn Trp Leu Lys Leu
 290 295 300
 Pro Leu Val His Leu His Trp Tyr Asp Lys Glu Val Arg Pro Gly Arg
 305 310 315 320
 Lys Val Gly His Leu Asn Leu Asn Asp Thr Asp Thr Asp Arg Leu Ser
 325 330 335
 Ala Thr Leu Glu Ala Ile Val Pro Leu Leu Pro Pro Glu Tyr Ala Ser
 340 345 350
 Gly Ile Val Trp Ala Gln Ser Lys Leu Lys
 355 360

<210> 7410

<211> 385

<212> PRT

<213> Enterobacter cloacae

<400> 7410

Val Ser Pro Ala Gly Glu Leu Thr Phe Pro Phe Pro Gly Val Gln Phe
 1 5 10 15
 Pro Pro Ile Ala Ala Gln Phe Ser Ser Gly Ile Thr Met Asn Asp Gly
 20 25 30
 Thr Asp Tyr Arg Ala Ile Leu Ala Ser Asp Thr Pro Leu Ile Asp Val
 35 40 45
 Arg Ala Pro Ile Glu Phe Ala Gln Gly Ala Met Pro Ala Ala Leu Asn
 50 55 60
 Leu Pro Leu Met Asn Asp Glu Arg Ala Ala Val Gly Thr Cys Tyr
 65 70 75 80
 Lys Arg Gln Gly Pro Asp Ala Ala Leu Ala Leu Gly His Ser Leu Val
 85 90 95
 Asn Gly Glu Thr Arg Glu Ala Arg Ile Asn Ala Trp Arg Glu Ala Ser
 100 105 110
 Leu Ala His Pro Glu Gly Tyr Leu Cys Cys Ala Arg Gly Gly Gln Arg
 115 120 125
 Ser His Ile Ser Gln Ala Trp Leu Lys Glu Ala Gly Ile Asp Tyr Pro
 130 135 140
 Leu Ile Arg Gly Gly Tyr Lys Ala Leu Arg Gln Thr Ala Ile Gln Val
 145 150 155 160
 Thr Ile Glu Gln Ser Gln Lys Pro Met Val Leu Ile Gly Gly Cys Thr
 165 170 175
 Gly Asn Gly Lys Thr Leu Leu Val Lys Gln His Ala Gln Gly Ile Asp
 180 185 190
 Leu Glu Gly Leu Ala His His Arg Gly Ser Ser Phe Gly Arg Thr Leu
 195 200 205
 Thr Pro Gln Leu Ser Gln Ala Ser Phe Glu Asn His Leu Ala Val Glu
 210 215 220
 Leu Leu Lys Lys Asp Ala Ala Arg Trp Val Leu Glu Asp Glu Gly Arg
 225 230 235 240
 Met Ile Gly Ser Asn His Leu Pro Glu Cys Leu Arg Asp Arg Met Val
 245 250 255
 Asp Ala Pro Val Val Val Val Glu Asp Pro Phe Glu Val Arg Leu Glu
 260 265 270
 Arg Leu Arg Glu Glu Tyr Phe Asp His Met Trp Ala Asp Phe Ser Ala
 275 280 285
 Ala Tyr Gly Glu Lys Ala Gly Trp Lys Ala Tyr Ser Glu Tyr Leu His
 290 295 300
 His Gly Leu Tyr Ala Ile Arg Arg Arg Leu Gly Leu Gln Arg Phe Ala
 305 310 315 320
 Glu Phe Thr Ala Leu Leu Asp Ala Ala Leu Val Glu Gln Gln Arg Thr
 325 330 335
 Gly Ser Thr Asp Ala His Phe Ser Trp Leu Val Pro Leu Leu Lys Asp
 340 345 350
 Tyr Tyr Asp Pro Met Tyr Gly Tyr Gln Leu Glu Lys Lys Ala Glu Lys
 355 360 365
 Ile Val Tyr Arg Gly Thr Tyr Glu Glu Ile Ala Glu Trp Leu Asp Arg
 370 375 380

385

<210> 7411

<211> 296

<212> PRT

<213> Enterobacter cloacae

<400> 7411

Leu Lys Asp Lys Pro Asp Met Pro Gly Ser Gln Arg Gly Ala Gly Leu


```
<210> 7412
<211> 210
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | His | Gln | Thr | Gly | Arg | His | Ala | Ala | Gln | Val | Ala | Gly | Arg | Asp | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ala | Ser | Ala | Gly | Leu | Val | Ser | Arg | Gly | Leu | Thr | Gly | Ala | Gly | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Gln | His | Leu | Pro | Val | Val | Pro | Gly | Lys | Pro | Ala | Pro | Leu | Pro | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Met | Met | Phe | Leu | Ser | Gln | Glu | Asp | Phe | Ala | Thr | Val | Val | Arg | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Pro | Leu | Ile | Ser | Ile | Asp | Leu | Ile | Val | Glu | Asn | Glu | Arg | Gly | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Leu | Leu | Gly | Lys | Arg | Thr | Asn | Arg | Pro | Ala | Gln | Gly | Phe | Trp | Phe |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Val | Pro | Gly | Gly | Arg | Val | Gln | Lys | Asp | Glu | Thr | Leu | Thr | Asp | Ala | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Arg | Leu | Thr | Leu | Ala | Glu | Leu | Gly | Leu | Gln | Leu | Pro | Met | Ala | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Gln | Phe | Tyr | Gly | Val | Trp | Gln | His | Phe | Tyr | Asp | Asp | Asn | Phe | Ser |

| | | | | |
|---|--|-----|--|-----|
| 130 | | 135 | | 140 |
| Gly Thr Gly Phe Thr Thr His Tyr Val Val Leu Gly Phe Arg Leu Lys | | | | |
| 145 | | 150 | | 155 |
| Val Ser Glu Ala Asp Leu Arg Leu Pro Asp Ser Gln His Asp Asp Tyr | | | | 160 |
| | | 165 | | 170 |
| Arg Trp Leu Thr Pro Glu Ala Leu Leu Ala Ser Asp Asn Val His Asp | | | | 175 |
| | | 180 | | 185 |
| Asn Ser Arg Ala Tyr Phe Leu Ala Glu Arg Gln Ala Glu Val Pro Gly | | | | 190 |
| | | 195 | | 200 |
| | | | | 205 |
| Leu | | | | |
| 210 | | | | |

<210> 7413

<211> 474

<212> PRT

<213> Enterobacter cloacae

<400> 7413

| | | | | |
|---|-----|-----|-----|-----|
| Ile Trp Pro Leu His Gly Gln Gly Gln Leu Leu Pro Glu Lys Gly Val | | | | |
| 1 | 5 | 10 | 15 | |
| Ile Met Glu Lys Leu Thr Cys Phe Lys Ala Tyr Asp Ile Arg Gly Lys | | | | |
| | 20 | 25 | 30 | |
| Leu Gly Glu Glu Leu Asn Glu Asp Ile Ala Trp Arg Ile Gly Arg Ala | | | | |
| | 35 | 40 | 45 | |
| Tyr Gly Glu Tyr Leu Lys Pro Gln Thr Ile Val Leu Gly Gly Asp Val | | | | |
| | 50 | 55 | 60 | |
| Arg Leu Thr Ser Glu Ser Leu Lys Leu Ala Leu Ala Lys Gly Leu Gln | | | | |
| | 65 | 70 | 75 | 80 |
| Asp Ala Gly Val Asp Val Leu Asp Ile Gly Leu Ser Gly Thr Glu Glu | | | | |
| | 85 | 90 | 95 | |
| Ile Tyr Phe Ala Thr Phe His Leu Gly Val Asp Gly Gly Ile Glu Val | | | | |
| | 100 | 105 | 110 | |
| Thr Ala Ser His Asn Pro Met Asp Tyr Asn Gly Met Lys Leu Val Arg | | | | |
| | 115 | 120 | 125 | |
| Lys Gly Ala Arg Pro Ile Ser Gly Asp Thr Gly Leu Arg Asp Val Gln | | | | |
| | 130 | 135 | 140 | |
| Arg Leu Ala Glu Ala Asn Asp Phe Pro Pro Val Asn Glu Ala Lys Arg | | | | |
| | 145 | 150 | 155 | 160 |
| Gly Ser Tyr Lys Gln Ile Asn Leu Gln Lys Glu Tyr Ile Asp His Leu | | | | |
| | 165 | 170 | 175 | |
| Leu Gly Tyr Ile Asn Val Ala Asn Leu Lys Pro Leu Lys Leu Val Ile | | | | |
| | 180 | 185 | 190 | |
| Asn Ser Gly Asn Gly Ala Ala Gly Pro Val Val Asp Ala Leu Glu Ala | | | | |
| | 195 | 200 | 205 | |
| Arg Phe Lys Ala Leu Asn Val Pro Val Thr Phe Val Lys Val His Asn | | | | |
| | 210 | 215 | 220 | |
| Thr Pro Asp Gly Asn Phe Pro Asn Gly Ile Pro Asn Pro Leu Leu Pro | | | | |
| | 225 | 230 | 235 | 240 |
| Glu Cys Arg Asp Asp Thr Arg Asn Ala Val Ile Glu His Gly Ala Asp | | | | |
| | 245 | 250 | 255 | |
| Met Gly Ile Ala Phe Asp Gly Asp Phe Asp Arg Cys Phe Leu Phe Asp | | | | |
| | 260 | 265 | 270 | |
| Glu Lys Gly Gln Phe Ile Glu Gly Tyr Tyr Ile Val Gly Leu Leu Ala | | | | |
| | 275 | 280 | 285 | |
| Glu Ala Phe Leu Glu Lys Asn Pro Gly Ala Lys Ile Ile His Asp Pro | | | | |
| | 290 | 295 | 300 | |
| Arg Leu Ser Trp Asn Thr Val Asp Val Val Lys Ala Ala Gly Gly Glu | | | | |
| | 305 | 310 | 315 | 320 |
| Pro Val Met Ser Lys Thr Gly His Ala Phe Ile Lys Glu Arg Met Arg | | | | |
| | 325 | 330 | 335 | |
| Glu Glu Asp Ala Ile Tyr Gly Gly Glu Met Ser Ala His His Tyr Phe | | | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 340 | | | | | 345 | | | | 350 | | | | | |
| Arg | Asp | Phe | Ala | Tyr | Cys | Asp | Ser | Gly | Met | Ile | Pro | Trp | Leu | Leu | Val | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Thr | Glu | Leu | Leu | Cys | Leu | Lys | Gly | Gln | Ser | Leu | Gly | Glu | Leu | Val | Arg | | |
| | | 370 | | | | 375 | | | | | 380 | | | | | | |
| Asp | Arg | Met | Ala | Ala | Phe | Pro | Ala | Ser | Gly | Glu | Ile | Asn | Ser | Lys | Leu | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Ala | Gln | Pro | Ala | Glu | Ala | Ile | Ala | Arg | Val | Glu | Gln | His | Phe | Ala | Ile | | |
| | | | 405 | | | | | | 410 | | | | | 415 | | | |
| His | Ala | Leu | Glu | Ile | Asp | Arg | Thr | Asp | Gly | Ile | Ser | Met | Ala | Phe | Pro | | |
| | | 420 | | | | | 425 | | | | | 430 | | | | | |
| Gln | Trp | Arg | Phe | Asn | Leu | Arg | Ser | Ser | Asn | Thr | Glu | Pro | Val | Val | Arg | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Leu | Asn | Val | Glu | Ser | Arg | Ala | Asp | Thr | Ala | Leu | Met | Glu | Ala | Arg | Thr | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Lys | Asp | Ile | Leu | Ala | Leu | Leu | Asn | Gln | | | | | | | | | |
| 465 | | | | | 470 | | | | | | | | | | | | |

<210> 7414

<211> 499

<212> PRT

<213> Enterobacter cloacae

<400> 7414

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Thr | Lys | Arg | Arg | Thr | Lys | Met | Ser | Leu | Arg | Glu | Lys | Thr | Ile | Ser | Gly | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Ala | Lys | Trp | Ser | Ala | Met | Ala | Thr | Ile | Val | Ile | Ile | Gly | Leu | Gly | Leu | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Val | Gln | Met | Thr | Val | Leu | Ala | Arg | Ile | Ile | Asp | Asn | His | Gln | Phe | Gly | | |
| | 35 | | | | | 40 | | | | 45 | | | | | | | |
| Leu | Leu | Thr | Val | Ser | Leu | Val | Ile | Ile | Ala | Leu | Ala | Asp | Thr | Leu | Ser | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Asp | Phe | Gly | Ile | Ala | Asn | Ser | Ile | Ile | Gln | Arg | Lys | Glu | Ile | Ser | His | | |
| 65 | | | | 70 | | | | 75 | | | | | | | 80 | | |
| Leu | Glu | Leu | Thr | Thr | Leu | Tyr | Trp | Leu | Asn | Val | Gly | Leu | Gly | Ile | Phe | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Val | Phe | Val | Leu | Val | Phe | Leu | Leu | Ser | Asp | Val | Ile | Ala | Gly | Val | Leu | | |
| | | 100 | | | | | 105 | | | | | | 110 | | | | |
| His | Asn | Pro | Asp | Leu | Ala | Pro | Leu | Met | Arg | Thr | Leu | Ser | Phe | Ala | Phe | | |
| | 115 | | | | | 120 | | | | | 125 | | | | | | |
| Val | Val | Ile | Pro | His | Gly | Gln | Gln | Phe | Arg | Ala | Leu | Met | Gln | Lys | Glu | | |
| | 130 | | | | 135 | | | | | | 140 | | | | | | |
| Leu | Glu | Phe | Asn | Lys | Ile | Gly | Met | Ile | Glu | Thr | Ser | Ala | Val | Leu | Ala | | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 | | |
| Gly | Phe | Thr | Phe | Thr | Val | Val | Ser | Ala | His | Phe | Trp | Pro | Leu | Ala | Met | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Thr | Ala | Ile | Leu | Gly | Tyr | Leu | Val | Asn | Ser | Ala | Val | Arg | Thr | Leu | Leu | | |
| | | 180 | | | | | 185 | | | | | | 190 | | | | |
| Phe | Gly | Phe | Phe | Gly | Arg | Lys | Ile | Tyr | Arg | Pro | Gly | Leu | His | Phe | Ser | | |
| | 195 | | | | | 200 | | | | | 205 | | | | | | |
| Leu | Ala | Ser | Val | Ser | Ser | Asn | Leu | Arg | Phe | Gly | Ala | Trp | Leu | Thr | Ala | | |
| | 210 | | | | 215 | | | | | 220 | | | | | | | |
| Asp | Ser | Ile | Ile | Asn | Tyr | Val | Asn | Thr | Asn | Leu | Ser | Thr | Leu | Val | Leu | | |
| 225 | | | | 230 | | | | 235 | | | | | | | 240 | | |
| Ala | Arg | Ile | Leu | Gly | Ala | Ser | Val | Ala | Gly | Gly | Tyr | Asn | Leu | Ala | Tyr | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Asn | Val | Ala | Val | Val | Pro | Pro | Met | Lys | Leu | Asn | Pro | Ile | Ile | Thr | Arg | | |
| | | 260 | | | | | 265 | | | | | | 270 | | | | |
| Val | Leu | Phe | Pro | Ala | Phe | Ala | Lys | Ile | Gln | Asp | Asp | Thr | Glu | Lys | Leu | | |
| | 275 | | | | | 280 | | | | | | 285 | | | | | |
| Arg | Val | Asn | Phe | Tyr | Lys | Leu | Leu | Ser | Val | Val | Gly | Ile | Ile | Asn | Phe | | |

| | | |
|---|---|-----|
| 290 | 295 | 300 |
| Pro Val Leu Leu Gly | Leu Met Val Val Ala Ser Asn Phe Val Pro Leu | |
| 305 | 310 | 315 |
| Val Phe Gly Glu Lys | Trp Asn Ser Ile Ile Pro Ile Leu Gln Leu Leu | |
| | 325 | 330 |
| Cys Val Val Gly Leu Leu Arg Ser Val Gly Asn Pro Ile Gly Ser Leu | | 335 |
| | 340 | 345 |
| Leu Met Ala Lys Ala Arg Val Asp Ile Ser Phe Lys Phe Asn Val Phe | | 350 |
| | 355 | 360 |
| Lys Thr Phe Leu Phe Ile Pro Ala Ile Ile Val Gly Gly His Met Ala | | 365 |
| | 370 | 375 |
| Gly Ala Ile Gly Val Thr Leu Gly Phe Leu Leu Val Gln Ile Val Asn | | 380 |
| 385 | 390 | 395 |
| Thr Val Leu Ser Tyr Phe Val Met Ile Lys Pro Val Leu Gly Ser Ser | | 400 |
| | 405 | 410 |
| Tyr Arg Gln Tyr Ile Leu Ser Leu Trp Leu Pro Phe Tyr Leu Ser Leu | | 415 |
| | 420 | 425 |
| Pro Thr Leu Ala Val Ser Tyr Gly Leu Gly Val Val Leu Asn Gly His | | 430 |
| | 435 | 440 |
| Leu Pro Leu Ala Ala Leu Leu Ala Val Gln Val Ala Ala Gly Ala Leu | | 445 |
| | 450 | 455 |
| Ala Phe Gly Val Met Ile Val Leu Ser Arg Asn Ala Leu Val Val Glu | | 460 |
| 465 | 470 | 475 |
| Met Lys Arg Gln Phe Cys Arg Asn Glu Lys Met Lys Thr Leu Leu Arg | | 480 |
| | 485 | 490 |
| | | 495 |
| Ala Gly | | |

<210> 7415

<211> 432

<212> PRT

<213> Enterobacter cloacae

<400> 7415

| | |
|---|-----|
| Phe Tyr Glu Ala Ile Met Lys Leu Leu Ile Leu Gly Asn His Thr Cys | |
| 1 | 5 |
| Gly Asn Arg Gly Asp Ser Ala Ile Leu Arg Gly Leu Leu Asp Ala Ile | |
| | 20 |
| Asn Thr Leu Lys Pro Glu Thr Glu Val Asp Val Met Ser Arg Tyr Pro | |
| | 35 |
| Val Ser Ser Ser Trp Leu Leu Asn Arg Pro Val Met Gly Asp Pro Leu | |
| | 50 |
| Tyr Ser Gln Met Lys Gln His Asn Asn Ala Ala Gly Val Met Gly Arg | |
| 65 | 70 |
| Val Lys Lys Val Leu Arg Arg Arg Tyr Gln His Gln Val Leu Leu Ser | |
| | 85 |
| Arg Val Thr Asp Thr Gly Lys Leu Arg Asn Ile Ala Ile Ala Gln Gly | |
| | 100 |
| Phe Thr Asp Phe Val Arg Leu Leu Ser Gly Tyr Asp Ala Ile Ile Gln | |
| | 115 |
| Val Gly Gly Ser Phe Phe Val Asp Leu Tyr Gly Val Pro Gln Phe Glu | |
| | 130 |
| His Ala Leu Cys Thr Phe Met Ala Lys Lys Pro Leu Phe Met Ile Gly | |
| 145 | 150 |
| His Ser Val Gly Pro Phe Gln Asp Pro Gln Phe Asn Gln Leu Ala Asn | |
| | 165 |
| Tyr Val Phe Gly His Cys Asp Ala Leu Ile Leu Arg Glu Ser Val Ser | |
| | 180 |
| Leu Asp Met Met Lys Arg Ser Glu Ile Asp Thr Thr Lys Val Glu His | |
| | 195 |
| Gly Val Asp Thr Ala Trp Leu Val Asp His Gln Asp Asp Ser Phe Gln | |
| | 200 |
| | 205 |

| | | |
|---|-----|-----|
| 210 | 215 | 220 |
| Ala Ser Tyr Ala Val Gln His Trp Leu Asp Val Ala Ala Lys Gln Lys | | |
| 225 | 230 | 235 |
| Thr Val Ala Ile Thr Leu Arg Glu Leu Ala Pro Phe Asp Lys Arg Leu | | |
| | 245 | 250 |
| Gly Thr Thr Gln Ala Ala Tyr Glu Lys Ala Phe Ala Asp Val Val Asn | | |
| | 260 | 265 |
| Arg Val Leu Asp Ser Gly Tyr Gln Val Leu Ala Leu Ser Thr Cys Thr | | |
| | 275 | 280 |
| Gly Ile Asp Ser Tyr Asn Lys Asp Asp Arg Met Val Ala Leu Asn Leu | | |
| | 290 | 295 |
| Arg Asn Leu Val Asn Asp Pro Ser Arg Tyr His Val Val Met Asp Glu | | |
| 305 | 310 | 315 |
| Leu Asn Asp Leu Glu Met Gly Lys Leu Leu Ser Ala Cys Asp Leu Thr | | |
| | 325 | 330 |
| Val Gly Thr Arg Leu His Ser Ala Ile Ile Ser Met Asn Phe Gly Thr | | |
| | 340 | 345 |
| Pro Ala Ile Ala Ile Asn Tyr Glu His Lys Ser Ala Gly Ile Met Gln | | |
| | 355 | 360 |
| Gln Leu Gly Met Pro Glu Met Ala Val Asp Ile Arg His Leu Leu Asp | | |
| 370 | 375 | 380 |
| Gly Ser Leu Gly Ala Met Val Gly Asp Thr Leu Gly Gln Leu Pro Ala | | |
| 385 | 390 | 395 |
| Ile Asn Glu Arg Leu Ala Val Ala Val Lys Ala Glu Arg Glu Lys Gly | | |
| | 405 | 410 |
| Ile Gly Met Val Lys Ser Val Leu Asp Arg Val Arg Glu Gly Lys | | |
| | 420 | 425 |
| | | 430 |

<210> 7416

<211> 345

<212> PRT

<213> Enterobacter cloacae

<400> 7416

| | |
|---|-----|
| Ser Ser Glu Lys Thr Leu Pro Ala Gln Val Ser Trp Leu Arg Gly Cys | |
| 1 | 5 |
| His Arg Ala Gly Val Leu Arg Met Thr Lys Gln Arg Ile Phe Val Ala | |
| | 20 |
| Gly His Arg Gly Met Val Gly Ser Ala Ile Val Arg Gln Leu Glu Gln | |
| | 35 |
| Arg Gly Asp Val Glu Val Ile Val Arg Thr Arg Asp Glu Leu Asn Leu | |
| | 50 |
| Leu Asp Ser Lys Ala Val Gln Asp Phe Phe Ala Ser Glu Arg Ile Asp | |
| 65 | 70 |
| Gln Val Tyr Leu Ala Ala Ala Lys Val Gly Gly Ile Val Ala Asn Asn | |
| | 85 |
| Thr Tyr Pro Ala Asp Phe Ile Tyr Glu Asn Met Met Ile Glu Ser Asn | |
| | 100 |
| Ile Ile His Ala Ala His Met His Asn Val Asn Lys Leu Leu Phe Leu | |
| | 115 |
| Gly Ser Ser Cys Ile Tyr Pro Lys Met Ala Lys Gln Pro Ile Ala Glu | |
| | 130 |
| Ser Glu Leu Leu Gln Gly Thr Leu Glu Ala Thr Asn Glu Pro Tyr Ala | |
| 145 | 150 |
| Ile Ala Lys Ile Ala Gly Ile Lys Leu Cys Glu Ser Tyr Asn Arg Gln | |
| | 165 |
| Tyr Asn Arg Asp Tyr Arg Ser Val Met Pro Thr Asn Leu Tyr Gly Pro | |
| | 180 |
| His Asp Asn Phe His Pro Ser Asn Ser His Val Ile Pro Ala Leu Leu | |
| | 195 |
| Arg Arg Phe His Glu Ala Thr Ala Glu Asn Ala Pro Asp Val Val Val | |
| | 200 |
| | 205 |

| | | |
|---|-----|-----|
| 210 | 215 | 220 |
| Trp Gly Ser Gly Thr Pro Met Arg Glu Phe Leu His Val Asp Asp Met | | |
| 225 | 230 | 235 |
| Ala Ala Ala Ser Ile His Val Met Glu Leu Asp Arg Glu Val Trp Gln | | |
| | 245 | 250 |
| Glu Asn Thr Glu Pro Met Leu Ser His Ile Asn Val Gly Thr Gly Val | | |
| | 260 | 265 |
| Asp Cys Thr Ile Arg Glu Leu Ala Gln Thr Ile Ala Gln Val Val Gly | | |
| | 275 | 280 |
| Tyr Lys Gly Arg Val Val Phe Asp Ala Thr Lys Pro Asp Gly Thr Pro | | |
| | 290 | 295 |
| Arg Lys Leu Leu Asp Val Thr Arg Leu His Gln Leu Gly Trp Tyr His | | |
| 305 | 310 | 315 |
| Glu Val Ser Leu Glu Gln Gly Leu Ala Ser Thr Tyr Gln Trp Phe Leu | | |
| | 325 | 330 |
| Glu Asn Gln His Arg Phe Arg Gly | | |
| | 340 | 345 |

<210> 7417

<211> 312

<212> PRT

<213> Enterobacter cloacae

<400> 7417

| | |
|---|-----|
| Leu Gly Leu Tyr Phe Val Asn His Phe Lys Val Glu Asp Lys Met Thr | |
| 1 | 5 |
| Asn Leu Lys Ala Val Ile Pro Val Ala Gly Leu Gly Met His Met Leu | |
| | 20 |
| Pro Ala Thr Lys Ala Ile Pro Lys Glu Met Leu Pro Ile Val Asp Lys | |
| | 35 |
| Pro Met Ile Gln Tyr Ile Val Asp Glu Ile Val Ala Ala Gly Ile Lys | |
| | 50 |
| Glu Ile Val Leu Val Thr His Ser Ser Lys Asn Ala Val Glu Asn His | |
| 65 | 70 |
| Phe Asp Thr Ser Tyr Glu Leu Glu Ala Leu Leu Glu Gln Arg Val Lys | |
| | 85 |
| Arg Gln Leu Leu Ala Glu Val Gln Ser Ile Cys Pro Pro Gly Val Thr | |
| | 100 |
| Ile Met Asn Val Arg Gln Ala Gln Pro Leu Gly Leu Gly His Ser Ile | |
| | 115 |
| Leu Cys Ala Arg Pro Val Val Gly Asp Asn Pro Phe Ile Val Val Leu | |
| | 130 |
| Pro Asp Ile Ile Ile Asp Asn Ala Ser Ala Asp Pro Leu Arg Tyr Asn | |
| 145 | 150 |
| Leu Ala Ala Met Val Ala Arg Phe Asn Glu Thr Gly Arg Ser Gln Val | |
| | 165 |
| Leu Ala Lys Arg Met Lys Gly Asp Leu Ser Glu Tyr Ser Val Ile Gln | |
| | 180 |
| Thr Lys Glu Pro Leu Glu Thr Glu Gly Gln Val Ser Arg Ile Val Glu | |
| | 195 |
| Phe Ile Glu Lys Pro Asp Gln Pro Gln Thr Leu Asp Ser Asp Leu Met | |
| | 210 |
| Ala Val Gly Arg Tyr Val Leu Asn Ala Asp Ile Trp Ala Glu Leu Glu | |
| 225 | 230 |
| Lys Thr Lys Pro Gly Ala Trp Glu Arg Ile Gln Leu Thr Asp Ala Ile | |
| | 245 |
| Ala Glu Leu Gly Lys Lys Gln Ser Val Asp Ala Met Leu Met Thr Gly | |
| | 260 |
| Asp Ser Tyr Asp Cys Gly Lys Lys Met Gly Tyr Met Gln Ala Phe Val | |
| | 275 |
| Asn Thr Gly Leu Arg Asn Leu Lys Glu Gly Ala Lys Phe Arg Lys Cys | |

290 295 300
 Ile Glu Asn Leu Leu His Glu
 305 310

<210> 7418
 <211> 378
 <212> PRT
 <213> Enterobacter cloacae

<400> 7418

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Asn | Ile | Asn | Met | Ser | Lys | Val | Ala | Leu | Ile | Thr | Gly | Val | Thr | Gly |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Gln | Asp | Gly | Ser | Tyr | Leu | Ala | Glu | Leu | Leu | Glu | Lys | Gly | Tyr | Glu | |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | His | Gly | Ile | Lys | Arg | Arg | Ala | Ser | Ser | Phe | Asn | Thr | Glu | Arg | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | His | Ile | Tyr | Gln | Asp | Pro | His | Ala | Ala | Asn | Pro | Lys | Phe | His | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Tyr | Gly | Asp | Leu | Thr | Asp | Thr | Ser | Asn | Leu | Thr | Arg | Ile | Leu | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Val | Gln | Pro | Asp | Glu | Val | Tyr | Asn | Leu | Gly | Ala | Met | Ser | His | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Val | Ser | Phe | Glu | Ser | Pro | Glu | Tyr | Thr | Ala | Asp | Val | Asp | Ala | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Thr | Leu | Arg | Leu | Leu | Glu | Ala | Ile | Arg | Phe | Leu | Gly | Leu | Glu | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Thr | Arg | Phe | Tyr | Gln | Ala | Ser | Thr | Ser | Glu | Leu | Tyr | Gly | Leu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Glu | Ile | Pro | Gln | Lys | Glu | Thr | Thr | Pro | Phe | Tyr | Pro | Arg | Ser | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Tyr | Ala | Val | Ala | Lys | Leu | Tyr | Ala | Tyr | Trp | Ile | Thr | Val | Asn | Tyr | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Ser | Tyr | Gly | Met | Tyr | Ala | Cys | Asn | Gly | Ile | Leu | Phe | Asn | His | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Pro | Arg | Arg | Gly | Glu | Thr | Phe | Val | Thr | Arg | Lys | Ile | Thr | Arg | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ile | Ala | Asn | Ile | Ala | Gln | Gly | Leu | Glu | Ser | Cys | Leu | His | Leu | Gly | Asn |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Met | Asp | Ser | Leu | Arg | Asp | Trp | Gly | His | Ala | Lys | Asp | Tyr | Val | Lys | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | Trp | Met | Met | Leu | Gln | Gln | Glu | Gln | Pro | Glu | Asp | Phe | Val | Ile | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Gly | Val | Gln | Tyr | Ser | Val | Arg | Gln | Phe | Val | Glu | Met | Ala | Ala | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Leu | Gly | Ile | Lys | Leu | Arg | Phe | Glu | Gly | Thr | Gly | Val | Glu | Glu | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Ile | Val | Val | Ser | Val | Thr | Gly | His | Asp | Ala | Pro | Gly | Val | Lys | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gly | Asp | Val | Ile | Val | Gln | Val | Asp | Pro | Arg | Tyr | Phe | Arg | Pro | Ala | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Val | Glu | Thr | Leu | Leu | Gly | Asp | Pro | Thr | Lys | Ala | His | Glu | Lys | Leu | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Trp | Lys | Pro | Glu | Thr | Thr | Leu | Gln | Glu | Met | Val | Ser | Glu | Met | Val | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Asp | Leu | Glu | Ala | Ala | Lys | Lys | His | Ser | Leu | Leu | Lys | Ser | His | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Tyr | Glu | Val | Ala | Ile | Ala | Leu | Glu | Ser | | | | | | | |
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<210> 7419
 <211> 425

<212> PRT

<213> Enterobacter cloacae

<400> 7419

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 Gly Ile Gly Lys Tyr Thr Gly Glu Met Val Glu Trp Met Ala Ser Gln
 35 40 45
 Gly His Asp Val Arg Val Ile Thr Ala Pro Pro Tyr Tyr Pro Glu Trp
 50 55 60
 Lys Val Gly Glu Arg Tyr Ser Ser Trp Arg Tyr Arg Arg Glu Glu Gly
 65 70 75 80
 Ala Ala Thr Val Trp Arg Cys Pro Leu Tyr Val Pro Lys Gln Pro Ser
 85 90 95
 Thr Leu Lys Arg Leu Ile His Leu Gly Ser Phe Ala Leu Ser Ser Phe
 100 105 110
 Phe Pro Leu Met Ala Gln Arg Arg Trp Lys Pro Asp Arg Ile Ile Gly
 115 120 125
 Val Val Pro Thr Leu Phe Cys Thr Pro Gly Met Arg Leu Leu Gly Lys
 130 135 140
 Leu Ser Gly Ala Arg Thr Leu Leu His Ile Gln Asp Tyr Glu Val Asp
 145 150 155 160
 Ala Met Leu Gly Leu Gly Met Ala Gly Lys Gly Lys Gly Lys Val
 165 170 175
 Ala Lys Leu Ala Ser Ala Phe Glu Arg Ser Gly Leu His Asn Val Asp
 180 185 190
 Tyr Val Ser Thr Ile Ser Arg Ser Met Met Asn Lys Ala Gln Glu Lys
 195 200 205
 Gly Val Pro Ala Glu Lys Val Ile Phe Phe Pro Asn Trp Ser Glu Val
 210 215 220
 Ala Arg Phe Arg Asp Val Thr Asp Gln Asp Ala Gln Ala Leu Arg Ala
 225 230 235 240
 Gln Leu Gly Leu Pro Ala Glu Gln Lys Ile Ile Leu Tyr Ser Gly Asn
 245 250 255
 Ile Gly Glu Lys Gln Gly Leu Glu Ser Val Ile Asp Ala Ala Leu Gln
 260 265 270
 Leu Ser Glu His Pro Trp Met Phe Val Ile Val Gly Gln Gly Gly Gly
 275 280 285
 Lys Ala Arg Leu Glu Lys Met Ala Ser Glu Arg Gly Leu Thr Asn Ile
 290 295 300
 Arg Phe Phe Pro Leu Gln Ser Tyr Asp Ala Leu Pro Ala Leu Leu Lys
 305 310 315 320
 Met Ala Asp Cys His Leu Val Val Gln Lys Arg Gly Ala Ala Asp Ala
 325 330 335
 Val Leu Pro Ser Lys Leu Thr Asn Ile Leu Ala Val Gly Gly Asn Ala
 340 345 350
 Val Ile Thr Ala Glu Ala Ala Thr Glu Leu Gly Gln Leu Cys Asn Ser
 355 360 365
 Tyr Pro Gly Ile Ala Val Cys Val Glu Pro Glu Ser Val Pro Ala Leu
 370 375 380
 Val Thr Gly Ile Glu Gln Ala Leu Ala Met Pro Lys Glu Asn Thr Val
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 Ala Arg Glu Tyr Ala Glu Arg Thr Leu Glu Lys Glu Asn Val Leu Ser
 405 410 415
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<210> 7420

<211> 480

<212> PRT

<213> Enterobacter cloacae

<400> 7420

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Met | Ser | Gln | Thr | Thr | Leu | Tyr | Pro | Val | Val | Met | Ala | Gly | Gly | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ser | Arg | Leu | Trp | Pro | Leu | Ser | Arg | Val | Leu | Tyr | Pro | Lys | Gln | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Cys | Leu | Lys | Gly | Asp | Leu | Thr | Met | Leu | Gln | Thr | Thr | Val | Asn | Arg |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Leu | His | Gly | Val | Glu | Cys | Glu | Ser | Pro | Val | Val | Ile | Cys | Asn | Glu | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Arg | Phe | Ile | Val | Ala | Glu | Gln | Leu | Arg | Gln | Leu | Asn | Lys | Leu | Thr |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Glu | Asn | Ile | Ile | Leu | Glu | Pro | Ala | Gly | Arg | Asn | Thr | Ala | Pro | Ala | Ile |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ala | Leu | Ala | Ala | Leu | Ala | Ala | Lys | Arg | Ser | Ser | Pro | Asp | Cys | Asp | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Met | Leu | Val | Leu | Ala | Ala | Asp | His | Val | Ile | Gln | Gln | Glu | Glu | Ala |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Phe | Arg | Asp | Ala | Val | Arg | Ala | Ala | Ile | Pro | Tyr | Ala | Glu | Asn | Gly | Lys |
| | 130 | | | | | | 135 | | | | | 140 | | | |
| Leu | Val | Thr | Phe | Gly | Ile | Val | Pro | Asp | Leu | Pro | Glu | Thr | Gly | Tyr | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Tyr | Ile | Arg | Arg | Gly | Ser | Val | Thr | Pro | Gly | Glu | Gly | Asp | Ser | Val | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Asp | Val | Ala | Gln | Phe | Val | Glu | Lys | Pro | Asn | Leu | Glu | Thr | Ala | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Tyr | Val | Ala | Ser | Gly | Glu | Tyr | Tyr | Trp | Asn | Ser | Gly | Met | Phe | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Phe | Arg | Ala | Gly | Arg | Tyr | Leu | Glu | Glu | Leu | Glu | Lys | Tyr | Arg | Pro | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Leu | Ser | Ala | Cys | Glu | Lys | Ala | Met | Ala | Val | Val | Asp | Pro | Asp | Leu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Asp | Phe | Ile | Arg | Val | Asp | Glu | Glu | Ala | Phe | Leu | Ala | Cys | Pro | Glu | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Ile | Asp | Tyr | Ala | Val | Met | Glu | Arg | Thr | Ala | Asp | Ala | Val | Val | Val |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Pro | Met | Asp | Ala | Gly | Trp | Ser | Asp | Val | Gly | Ser | Trp | Ser | Ser | Leu | Trp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Ile | Ser | Ala | His | Thr | Pro | Glu | Gly | Asn | Val | His | His | Gly | Asp | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ile | Ser | His | Lys | Thr | Glu | Asn | Ser | Tyr | Val | Tyr | Ala | Glu | Ser | Gly | Leu |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Val | Thr | Thr | Val | Gly | Val | Lys | Asp | Leu | Val | Val | Val | Gln | Thr | Lys | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Val | Leu | Ile | Ala | Asp | Arg | Asn | Ala | Val | Gln | Asp | Val | Lys | Lys | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Val | Glu | Lys | Ile | Lys | Ala | Asp | Gly | Arg | His | Glu | His | His | Ile | His | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Glu | Val | Tyr | Arg | Pro | Trp | Gly | Lys | Tyr | Asp | Ser | Ile | Asp | Ala | Gly | Glu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Arg | Tyr | Gln | Val | Lys | Arg | Ile | Thr | Val | Lys | Pro | Gly | Glu | Gly | Leu | Ser |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Val | Gln | Met | His | His | His | Arg | Ala | Glu | His | Trp | Val | Val | Val | Ala | Gly |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Thr | Ala | Lys | Val | Thr | Ile | Asp | Gly | Glu | Val | Lys | Leu | Leu | Gly | Glu | Asn |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | Ser | Ile | Tyr | Ile | Pro | Leu | Gly | Ala | Thr | His | Cys | Leu | Glu | Asn | Pro |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gly | Lys | Ile | Pro | Leu | Asp | Leu | Ile | Glu | Val | Arg | Ser | Gly | Ser | Tyr | Leu |

450 455 460
 Glu Glu Asp Asp Ile Ile Arg Phe Gln Asp Arg Tyr Gly Arg Val
 465 470 475 480

<210> 7421

<211> 489

<212> PRT

<213> Enterobacter cloacae

<400> 7421

Thr Pro Ser Pro Leu Trp Gly Glu Gly Arg Gly Glu Gly Arg Gly Val
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 Arg Ala Arg Thr Asn Ala Ser Leu Ile Ser Met Val Gln Arg Phe Ser
 35 40 45
 Asp Ile Thr Ile Met Val Gly Gly Leu Trp Ala Val Cys Trp Val Ser
 50 55 60
 Gly Gln Ser Phe Leu Tyr Met His Leu Leu Met Ala Leu Ile Ala Leu
 65 70 75 80
 Val Val Phe Gln Met Ile Gly Gly Met Thr Asp Phe Tyr Arg Ser Trp
 85 90 95
 Arg Gly Val Lys Met Thr Thr Glu Leu Met Leu Leu Leu Gln Asn Trp
 100 105 110
 Thr Leu Ser Leu Val Phe Ser Ala Gly Leu Val Ala Phe Ser His Asp
 115 120 125
 Phe Asp Asn Arg Leu Val Thr Tyr Leu Cys Trp Tyr Leu Leu Thr Ser
 130 135 140
 Ile Gly Met Val Val Cys Arg Ser Leu Ile Arg Phe Gly Ala Gly Trp
 145 150 155 160
 Leu Arg Asn Arg Gly Tyr Asn Arg Arg Phe Val Ala Val Ala Gly Asp
 165 170 175
 Leu Pro Val Gly Gln Val Leu Leu Asp Ser Phe Arg Lys Glu Pro Trp
 180 185 190
 Leu Gly Phe Glu Val Val Gly Ile Tyr His Asp Ala Lys Pro Gly Gly
 195 200 205
 Val Pro Ser Asp Trp Ala Gly Asn Tyr Glu Gln Leu Ile Asp Asp Ala
 210 215 220
 Lys Ala Gly Lys Ile His Asn Val Tyr Ile Ala Met Gln Met Lys Asp
 225 230 235 240
 Glu Ser Arg Ile Lys Lys Leu Met Arg Glu Leu Ala Asp Thr Thr Cys
 245 250 255
 Ser Val Ile Leu Ile Pro Asp Val Phe Thr Phe Asn Ile Leu His Ser
 260 265 270
 Arg Ile Glu Glu Val Asn Gly Val Pro Val Val Pro Leu Tyr Asp Thr
 275 280 285
 Pro Leu Ser Gly Ile Asn Arg Val Leu Lys Arg Ala Glu Asp Ile Val
 290 295 300
 Leu Ser Ser Leu Ile Leu Leu Leu Ile Ser Pro Val Leu Cys Cys Ile
 305 310 315 320
 Ala Leu Ala Val Lys Leu Ser Ser Pro Gly Pro Ile Ile Phe Arg Gln
 325 330 335
 Thr Arg Tyr Gly Met Asp Gly Lys Pro Ile Met Val Trp Lys Phe Arg
 340 345 350
 Ser Met Lys Val Met Glu Asn Asp Lys Val Val Thr Gln Ala Thr Gln
 355 360 365
 Asn Asp Pro Arg Val Thr Arg Val Gly Asn Phe Leu Arg Arg Thr Ser
 370 375 380
 Leu Asp Glu Leu Pro Gln Phe Ile Asn Val Phe Thr Gly Gly Met Ser
 385 390 395 400
 Ile Val Gly Pro Arg Pro His Ala Val Ala His Asn Glu Gln Tyr Arg

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 405 | | | | | 410 | | | | 415 | | | | |
| Thr | Leu | Ile | Glu | Gly | Tyr | Met | Leu | Arg | His | Lys | Val | Lys | Pro | Gly | Ile | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Thr | Gly | Trp | Ala | Gln | Ile | Asn | Gly | Trp | Arg | Gly | Glu | Thr | Asp | Thr | Leu | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Glu | Lys | Met | Glu | Lys | Arg | Ile | Glu | Phe | Asp | Leu | Glu | Tyr | Ile | Arg | Glu | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Trp | Ser | Leu | Trp | Phe | Asp | Ile | Lys | Ile | Val | Phe | Leu | Thr | Ile | Phe | Lys | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Gly | Phe | Val | Asn | Lys | Ala | Ala | Tyr | | | | | | | | | | |
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<210> 7422

<211> 464

<212> PRT

<213> Enterobacter cloacae

<400> 7422

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| Asn | Gly | Arg | Arg | Tyr | Ser | Ser | Ser | Ala | Gly | Arg | Ile | Ala | Gly | Cys | Asp | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Gly | Gly | Arg | His | Ala | Arg | Pro | Ala | Ala | Cys | Asp | Gln | Arg | Thr | Ser | Gly | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Gly | Gly | Gly | Lys | Ser | Arg | Thr | Arg | Lys | Arg | Tyr | Trp | His | Gly | Glu | Ile | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Arg | Thr | Arg | Pro | Arg | Pro | Gly | Gly | Glu | Met | Lys | Phe | Gly | Phe | Phe | Leu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Leu | Lys | Phe | Pro | Leu | Ser | Ser | Glu | Thr | Phe | Val | Leu | Asn | Gln | Ile | Thr | | |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 | | |
| Ala | Phe | Ile | Asp | Met | Gly | Tyr | Asp | Val | Glu | Ile | Ile | Ala | Leu | Gln | Lys | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Gly | Asp | Thr | Gln | Asn | Thr | His | Ala | Ala | Tyr | Thr | Arg | Tyr | Gly | Leu | Glu | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Ala | Lys | Thr | Arg | Trp | Leu | Gln | Asp | Glu | Pro | Ala | Gly | Arg | Met | Asn | Lys | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Arg | His | Arg | Ala | Gly | Gln | Thr | Leu | Arg | Gly | Leu | His | Arg | Ala | Ser | | |
| | 130 | | | | 135 | | | | | | 140 | | | | | | |
| Thr | Trp | Arg | Ala | Leu | Asn | Met | Ser | Arg | Tyr | Gly | Ala | Glu | Ala | Arg | Asn | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Leu | Ile | Leu | Ser | Ala | Ile | Cys | Gly | Gln | Thr | Ala | Gln | Pro | Tyr | Arg | Ala | | |
| | | | 165 | | | | | | 170 | | | | | 175 | | | |
| Asp | Val | Phe | Ile | Ala | His | Phe | Gly | Pro | Ala | Gly | Val | Thr | Ala | Ala | Lys | | |
| | | 180 | | | | | 185 | | | | | | 190 | | | | |
| Leu | Arg | Glu | Leu | Gly | Val | Ile | Asp | Gly | Lys | Ile | Ala | Thr | Ile | Phe | His | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Gly | Ile | Asp | Ile | Ser | Ser | Arg | Glu | Val | Leu | Asn | His | Tyr | Thr | Pro | Glu | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Tyr | Gln | Gln | Leu | Phe | Arg | Arg | Gly | Asp | Met | Met | Leu | Pro | Ile | Ser | Asn | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Leu | Trp | Ala | Gly | Arg | Leu | Lys | Thr | Met | Gly | Cys | Pro | Ser | Glu | Lys | Ile | | |
| | | | 245 | | | | | | 250 | | | | | 255 | | | |
| Thr | Val | Ser | Arg | Met | Gly | Val | Asp | Met | Glu | Arg | Phe | Thr | Gln | Arg | Pro | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Val | Lys | Val | Pro | Gly | Lys | Pro | Leu | Gln | Ile | Ile | Ser | Val | Ala | Arg | Leu | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | |
| Thr | Glu | Lys | Lys | Gly | Leu | His | Val | Ala | Ile | Glu | Ala | Cys | Arg | Gln | Leu | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Lys | Ala | Arg | Gly | Val | Asp | Phe | His | Tyr | Arg | Ile | Leu | Gly | Ile | Gly | Pro | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Trp | Glu | Arg | Arg | Leu | Arg | Thr | Leu | Ile | Glu | Gln | Tyr | Gln | Leu | Glu | Asp | | |
| | | | 325 | | | | | | 330 | | | | | 335 | | | |
| Val | Val | Glu | Met | Pro | Gly | Phe | Lys | Pro | Ser | His | Glu | Val | Lys | Ala | Met | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 340 | | | | | 345 | | | | 350 | | | |
| Leu | Asp | Asp | Ala | Asp | Val | Phe | Leu | Leu | Pro | Ser | Val | Thr | Gly | Ala | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Asp | Met | Glu | Gly | Ile | Pro | Val | Ala | Leu | Met | Glu | Ala | Met | Ala | Val |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Gly | Ile | Pro | Val | Val | Ser | Thr | Leu | His | Ser | Gly | Ile | Pro | Glu | Leu | Ile |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Thr | Ser | Glu | His | Ser | Gly | Trp | Leu | Val | Pro | Glu | Asn | Asn | Ala | Leu | Ala |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Leu | Ala | Asp | Arg | Leu | Ala | Ala | Phe | Ser | Asp | Ile | Asp | Gln | Gln | Thr | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Pro | Val | Leu | Gln | Asn | Ala | Arg | Gln | Lys | Val | Glu | Ala | Glu | Phe | Asn |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gln | Gln | Val | Ile | Asn | Arg | Gln | Leu | Ala | Ser | Leu | Leu | Gln | Thr | Leu | |
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<210> 7423

<211> 466

<212> PRT

<213> Enterobacter cloacae

<400> 7423

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| Gly | Cys | Met | Leu | Lys | Lys | Ile | Thr | Arg | Arg | Arg | Phe | Val | Ser | Ser | Leu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Val | Leu | Ala | Ala | Met | Pro | Leu | Leu | Ser | Pro | Arg | Ala | Ala | Arg | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Thr | Gly | Lys | Thr | Val | Ser | Val | Asp | Arg | Tyr | Asn | Asn | Asn | Asp | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Ala | Ala | Phe | Lys | Gln | Ala | Phe | Thr | Glu | Gly | Asp | Thr | Val | Val | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Ala | Gly | Leu | Thr | Cys | Glu | Asn | Ile | Asn | Thr | Gly | Ile | Phe | Ile | Pro |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Asp | Gly | Lys | Thr | Leu | Leu | Ile | Arg | Gly | Ala | Leu | Lys | Gly | Asn | Gly | Arg |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Arg | Phe | Val | Leu | Gln | Glu | Gly | Cys | Lys | Val | Ile | Gly | Glu | Gly | Glu |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Gly | Arg | Thr | His | Asn | Ile | Thr | Leu | Asp | Val | Arg | Gly | Ser | Asp | Cys | Val |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Ile | Lys | Gly | Leu | Ala | Met | Ser | Gly | Phe | Gly | Pro | Val | Thr | Gln | Ile | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Gly | Gly | Lys | Lys | Pro | Arg | Val | Met | Arg | Asn | Leu | Leu | Ile | Asp | Arg |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Ile | Ala | Val | Ser | Gln | Ala | Asn | Tyr | Ala | Ile | Leu | Arg | Gln | Gly | Phe | His |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asn | Gln | Val | Asp | Gly | Ala | Arg | Ile | Thr | Asn | Ser | Lys | Phe | Ser | His | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Gln | Gly | Asp | Ala | Ile | Glu | Trp | Asn | Val | Ala | Ile | Asn | Asp | Arg | Asn | Ile |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Leu | Ile | Ser | Asp | His | Val | Ile | Asp | Asn | Ile | Asn | Cys | Thr | Asn | Gly | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Asn | Trp | Gly | Ile | Gly | Ile | Gly | Leu | Ala | Gly | Ser | Thr | Tyr | Asp | Asn |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Asp | Tyr | Pro | Glu | Gln | Gln | Thr | Val | Lys | Asn | Phe | Val | Val | Ala | Asn | Ile |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Thr | Gly | Ser | Asn | Cys | Arg | Gln | Leu | Val | His | Val | Glu | Asn | Gly | Lys | His |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Phe | Val | Ile | Arg | Asn | Ile | Lys | Ala | Ser | Asn | Ile | Thr | Pro | Asp | Phe | Ser |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Lys | Lys | Ala | Gly | Ile | Asp | Asn | Ala | Thr | Val | Ala | Ile | Tyr | Gly | Cys | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Phe | Val | Ile | Asp | Asn | Ile | Asp | Met | Val | Asn | Ser | Ala | Gly | Met | Leu |

305 310 315 320
 Ile Gly Tyr Gly Val Ile Lys Gly Asp Tyr Leu Ser Ile Pro Gln Asn
 325 330 335
 Phe Lys Leu Asn Asp Ile Arg Leu Asp Asn Arg Gln Leu Ala Tyr Lys
 340 345 350
 Leu Arg Gly Ile Gln Ile Ser Ser Gly Asn Ala Thr Ser Phe Val Ala
 355 360 365
 Ile Thr Asn Val Glu Met Gln Arg Ala Thr Leu Glu Leu His Asn Lys
 370 375 380
 Pro Gln His Leu Phe Leu Arg Asn Ile Asn Val Met Gln Glu Ser Thr
 385 390 395 400
 Thr Gly Pro Ala Leu Lys Met Asn Phe Asp Leu Arg Lys Asp Val Arg
 405 410 415
 Gly Lys Phe Met Ala Lys Asn Glu Thr Leu Leu Ser Leu Ala Asn Ile
 420 425 430
 Lys Ala Val Asn Glu Lys Gly Gln Ser Ser Val Asp Ile Asp Arg Val
 435 440 445
 Asp Gln His Val Val Asn Thr Glu Arg Leu Asn Phe Ala Leu Pro His
 450 455 460
 Arg
 465

<210> 7424

<211> 337

<212> PRT

<213> Enterobacter cloacae

<400> 7424

Arg Ile Glu Trp Ile Met Asn Asp Lys Val Leu Phe Ile Gly Ala Ser
 1 5 10 15
 Gly Phe Val Gly Thr Arg Leu Ile Glu Ile Ser Lys Thr Asp Phe Asp
 20 25 30
 Val Thr Asn Phe Asp Lys Gln Gln Ser His Phe Tyr Pro Asp Ile Thr
 35 40 45
 Val Ser Gly Asp Val Arg Asn Gln Asp Gln Leu Asp Gln Ala Leu Ala
 50 55 60
 Gly Phe Glu Thr Val Val Leu Leu Ala Ala Glu His Arg Asp Asp Val
 65 70 75 80
 Ser Pro Thr Ser Leu Tyr Tyr Asp Val Asn Val Gln Gly Thr Arg Asn
 85 90 95
 Val Leu Ser Ala Met Glu Lys Asn Asn Val Lys Asn Ile Ile Phe Thr
 100 105 110
 Ser Ser Val Ala Val Tyr Gly Leu Asn Lys Val Asn Pro Asp Glu Ser
 115 120 125
 His Pro His Asp Pro Phe Asn His Tyr Gly Lys Ser Lys Trp Gln Ala
 130 135 140
 Glu Glu Val Leu Arg Glu Trp Phe Asn Lys Ala Pro Glu Glu Arg Ser
 145 150 155 160
 Leu Thr Ile Val Arg Pro Thr Val Ile Phe Gly Glu Arg Asn Arg Gly
 165 170 175
 Asn Val Tyr Asn Leu Leu Lys Gln Ile Ala Gly Gly Lys Phe Ala Met
 180 185 190
 Val Gly Ala Gly Thr Asn Tyr Lys Ser Met Ala Tyr Val Gly Asn Ile
 195 200 205
 Val Glu Phe Ile Lys Phe Lys Leu Thr Asn Val Lys Pro Gly Tyr Asp
 210 215 220
 Val Tyr Asn Tyr Val Asp Lys Pro Asp Leu Asn Met Asn Gln Leu Val
 225 230 235 240
 Ser Glu Val Glu Lys Ser Leu Asn Lys Lys Ile Pro Ser Val His Leu
 245 250 255
 Pro Tyr Pro Leu Gly Met Leu Gly Gly Tyr Cys Phe Asp Ile Leu Ser


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<210> 7425
<211> 146
<212> PRT
<213> Enterobacter cloacae
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<210> 7426
<211> 232
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 7426 | | | | | | | | | | | | | | | |
| Phe | Val | Ala | Ser | Val | Val | Leu | Leu | Leu | Ser | Arg | Gln | Ser | Arg | Leu | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Asp | Lys | Gly | Cys | Gln | Ser | Leu | Arg | Phe | Thr | Leu | Lys | Arg | Ser | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ser | Phe | Ser | Trp | Gly | Gly | Asn | Cys | Leu | His | Ser | Leu | Leu | Gln | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Gln | Lys | Thr | Gly | Ile | Phe | Met | Val | Leu | Ile | Ile | Tyr | Ala | His | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Pro | Gln | His | Ser | His | Ala | Asn | Lys | Arg | Met | Leu | Glu | Gln | Ala | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Leu | Glu | Asn | Val | Glu | Ile | Arg | Ser | Leu | Tyr | Gln | Leu | Tyr | Pro | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Phe | Asn | Ile | Asp | Val | Ala | Ala | Glu | Gln | Glu | Ala | Leu | Ser | Arg | Ala | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ile | Val | Trp | Gln | His | Pro | Met | Gln | Trp | Tyr | Ser | Thr | Pro | Pro | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Leu Lys Leu Trp Ile Asp Lys Val Phe Ser His Gly Trp Ala Tyr Gly
 130 135 140
 His Asn Gly Asn Ala Leu His Gly Lys Ser Leu Met Trp Ala Val Thr
 145 150 155 160
 Thr Gly Gly Gly Glu Ser His Phe Glu Ile Gly Ala Phe Pro Gly Phe
 165 170 175
 Asp Val Leu Ala Gln Pro Leu Gln Ala Thr Ala Leu Tyr Cys Gly Leu
 180 185 190
 Asn Trp Leu Pro Pro Phe Ala Met His Cys Thr Phe Val Cys Asp Asp
 195 200 205
 Glu Thr Leu Gln Ala Gln Ala Arg His Tyr Lys Gln Arg Leu Leu Glu
 210 215 220
 Trp Gln Glu Thr His Asn Gly
 225 230

<210> 7427

<211> 96

<212> PRT

<213> Enterobacter cloacae

<400> 7427

Pro Lys Ile Val Arg Ser Ile Thr Lys Ile Gln Leu Arg Ala Gly Glu
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 Tyr Thr Met Gln Asn Lys Leu Leu Ile Ala Ser Val Leu Ala Ala Thr
 20 25 30
 Ala Met Phe Thr Val Ala Gly Cys Ser Ser Asn Gln Ala Val Lys Thr
 35 40 45
 Thr Asp Gly Lys Thr Ile Val Thr Asp Gly Lys Pro Gln Val Asp Asp
 50 55 60
 Asp Thr Gly Leu Val Ser Tyr Lys Asn Ala Glu Thr Gly Gln Thr Glu
 65 70 75 80
 Gln Ile Asn Arg Asp Gln Val Lys Ser Met Gly Glu Leu Asp Asn
 85 90 95

<210> 7428

<211> 659

<212> PRT

<213> Enterobacter cloacae

<400> 7428

Thr Gly Phe Arg Leu Leu Arg Cys Thr Val Pro Leu Ser Ala Thr Met
 1 5 10 15
 Lys Pro Cys Arg Arg Arg Leu Val Thr Thr Asn Asn Ala Tyr Leu Ser
 20 25 30
 Gly Arg Arg Arg Thr Met Asp Ser His Thr Leu Ile Gln Ala Leu Ile
 35 40 45
 Tyr Leu Gly Ala Ala Ala Leu Ile Val Pro Val Ala Val Arg Leu Gly
 50 55 60
 Leu Gly Ser Val Leu Gly Tyr Leu Ile Ala Gly Cys Val Ile Gly Pro
 65 70 75 80
 Trp Gly Phe Arg Leu Val Thr Asp Ala Glu Ser Ile Leu His Phe Ala
 85 90 95
 Glu Ile Gly Val Val Leu Met Leu Phe Val Ile Gly Leu Glu Leu Asp
 100 105 110
 Pro Gln Arg Leu Trp Lys Leu Arg Ala Ser Val Phe Gly Gly Gly Ala
 115 120 125
 Leu Gln Met Leu Ala Cys Gly Leu Leu Leu Gly Gly Phe Cys Ile Leu
 130 135 140
 Leu Gly Met Glu Trp Lys Val Ala Glu Leu Ile Gly Met Thr Leu Ala
 145 150 155 160
 Leu Ser Ser Thr Ala Ile Ala Met Gln Ala Met Asn Glu Arg Asn Leu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Val | Ser | Gln | Met | Gly | Arg | Ser | Thr | Phe | Ser | Val | Leu | Leu | Phe | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Ile | Ala | Ala | Ile | Pro | Leu | Val | Ala | Met | Ile | Pro | Leu | Leu | Ala | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Gly | Ala | Ser | Thr | Thr | Leu | Gly | Ala | Phe | Ala | Leu | Ser | Ala | Leu | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Val | Gly | Ala | Leu | Ala | Leu | Val | Val | Leu | Leu | Gly | Arg | Tyr | Val | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Pro | Leu | Leu | Arg | Phe | Val | Ala | Arg | Ser | Gly | Leu | Arg | Glu | Val | Phe |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ser | Ala | Val | Ala | Leu | Phe | Leu | Val | Phe | Gly | Phe | Gly | Leu | Leu | Leu | Glu |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Glu | Ala | Gly | Leu | Ser | Met | Ala | Met | Gly | Ala | Phe | Leu | Ala | Gly | Val | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Ala | Ser | Ser | Glu | Tyr | Arg | His | Ala | Leu | Glu | Ser | Asp | Ile | Glu | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Phe | Lys | Gly | Leu | Leu | Leu | Gly | Leu | Phe | Phe | Ile | Gly | Val | Gly | Met | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Asp | Phe | Gly | Thr | Leu | Val | Thr | His | Pro | Leu | Arg | Ile | Ile | Ile | Leu |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Val | Gly | Phe | Leu | Val | Ile | Lys | Met | Ala | Met | Leu | Trp | Leu | Ile | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Arg | Pro | Leu | Asn | Val | Pro | Lys | Pro | Gln | Arg | Arg | Trp | Phe | Ala | Val | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Gly | Gln | Gly | Ser | Glu | Phe | Ala | Phe | Val | Val | Phe | Gly | Ala | Ala | Gln |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Met | Ala | Asn | Val | Leu | Asp | Pro | Glu | Trp | Ala | Lys | Ala | Leu | Thr | Leu | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Ala | Leu | Ser | Met | Ala | Ala | Thr | Pro | Ile | Leu | Leu | Val | Leu | Leu | Thr |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Arg | Leu | Glu | Lys | Thr | Gly | Ser | Glu | Gln | Glu | Arg | Glu | Ala | Asp | Glu | Ile |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Glu | Glu | Gln | Pro | Arg | Val | Ile | Ile | Ala | Gly | Phe | Gly | Arg | Phe | Gly |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gln | Ile | Thr | Gly | Arg | Leu | Leu | Leu | Ser | Ser | Gly | Val | Lys | Met | Val | Ile |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Leu | Asp | His | Asp | Pro | Asp | His | Val | Asp | Thr | Leu | Arg | Lys | Phe | Asp | Met |
| 465 | | | | | 470 | | | | | 475 | | | | 480 | |
| Lys | Val | Phe | Tyr | Gly | Asp | Ala | Thr | Arg | Val | Asp | Leu | Leu | Glu | Ser | Ala |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Gly | Ala | Ala | Lys | Ala | Glu | Val | Leu | Ile | Asn | Ala | Ile | Asp | Asp | Pro | Glu |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Thr | Ser | Met | Gln | Met | Val | Glu | Leu | Val | Lys | Glu | His | Phe | Pro | His | Leu |

Ser Ala

<210> 7429

<211> 171

<212> PRT

<213> Enterobacter cloacae

<400> 7429

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Arg | Gln | Phe | Phe | Ala | Ser | Gly | Lys | Phe | Ser | Met | Ile | Ser | Leu | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ala | Leu | Ala | Val | Asp | Arg | Val | Ile | Gly | Met | Glu | Asn | Ala | Met | Pro |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Trp | Asn | Leu | Pro | Ala | Asp | Leu | Ala | Trp | Phe | Lys | Arg | Thr | Thr | Leu | Asn |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Lys | Pro | Val | Val | Met | Gly | Arg | Leu | Thr | Trp | Glu | Ser | Ile | Gly | Arg | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Pro | Gly | Arg | Lys | Asn | Ile | Val | Ile | Ser | Ser | Gln | Pro | Gly | Thr | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Arg | Val | Gln | Trp | Val | Lys | Ser | Val | Asp | Glu | Ala | Ile | Ala | Ala | Cys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Asp | Ala | Glu | Ile | Met | Val | Ile | Gly | Gly | Gly | Arg | Val | Tyr | Glu | |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Gln | Phe | Leu | Pro | Lys | Ala | Gln | Lys | Leu | Tyr | Leu | Thr | His | Ile | Asp | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Val | Glu | Gly | Asp | Thr | His | Phe | Pro | Asp | Tyr | Asp | Pro | Asp | Glu | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Ser | Val | Phe | Ser | Glu | Phe | His | Asp | Ala | Asp | Glu | Gln | Asn | Ser | His |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Tyr | Cys | Phe | Glu | Ile | Leu | Glu | Arg | Arg | | | | | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 7430

<211> 278

<212> PRT

<213> Enterobacter cloacae

<400> 7430

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Gly | Tyr | Ala | Cys | Pro | Ser | Ser | Arg | Leu | Val | Lys | Thr | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | Glu | Lys | Gly | Ala | Gln | Asn | Gly | Cys | Ile | Ile | Ala | Gly | Asp | Asn |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Asp | Ala | Thr | Leu | Ala | Leu | Glu | Lys | Ala | Lys | Ala | Phe | Pro | Gly | Leu |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Asn | Gly | Met | Asp | Leu | Ala | Lys | Glu | Val | Thr | Thr | Ala | Glu | Ala | Tyr | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Thr | Gln | Gly | Ser | Trp | Thr | Leu | Glu | Gly | Asp | Leu | Pro | Glu | Ala | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Glu | Ser | Glu | Leu | Pro | Phe | His | Val | Val | Ala | Tyr | Asp | Phe | Gly | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Arg | Asn | Ile | Leu | Arg | Met | Leu | Val | Asp | Arg | Gly | Cys | Arg | Leu | Thr |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Met | Val | Pro | Ala | Gln | Thr | Ser | Ala | Glu | Asp | Val | Leu | Lys | Met | Asn | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Gly | Ile | Phe | Leu | Ser | Asn | Gly | Pro | Gly | Asp | Pro | Ala | Pro | Cys | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Ala | Ile | Ala | Ala | Ile | Lys | Ser | Phe | Leu | Glu | Thr | Asp | Ile | Pro | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Gly | Ile | Cys | Leu | Gly | His | Gln | Leu | Leu | Ala | Leu | Ala | Ser | Gly | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asn | Thr | Val | Lys | Met | Lys | Phe | Gly | His | His | Gly | Gly | Asn | His | Pro | Val |


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<210> 7431
<211> 1081
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <400> | 7431 | | | | | | | | | | | | | | |
| Ser 1 | Gly | Ala | Glu | Lys 5 | Thr | Met | Pro | Lys | Arg 10 | Thr | Asp | Ile | Lys 15 | Ser | Ile |
| Leu | Ile | Leu 20 | Gly | Ala | Gly | Pro | Ile | Val 25 | Ile | Gly | Gln | Ala | Cys 30 | Glu | Phe |
| Asp | Tyr 35 | Ser | Gly | Ala | Gln | Ala | Cys 40 | Lys | Ala | Leu | Arg | Glu 45 | Glu | Gly | Tyr |
| Arg | Val 50 | Ile | Leu | Val | Asn | Ser 55 | Asn | Pro | Ala | Thr | Ile 60 | Met | Thr | Asp | Pro |
| Glu 65 | Met | Ala | Asp | Ala | Thr 70 | Tyr | Ile | Glu | Pro | Ile 75 | His | Trp | Glu | Val | Val 80 |
| Arg | Lys | Ile | Ile | Glu 85 | Lys | Glu | Arg | Pro | Asp 90 | Ala | Val | Leu | Pro | Thr 95 | Met |
| Gly | Gly | Gln 100 | Thr | Ala | Leu | Asn | Cys | Ala 105 | Leu | Glu | Leu | Glu | Arg 110 | Gln | Gly |
| Val | Leu | Glu 115 | Glu | Phe | Gly | Val | Thr 120 | Met | Ile | Gly | Ala | Thr 125 | Ala | Asp | Ala |
| Ile | Asp 130 | Lys | Ala | Glu | Asp | Arg 135 | Arg | Arg | Phe | Asp | Val 140 | Ala | Met | Lys | Lys |
| Ile 145 | Gly | Leu | Asp | Thr | Ala 150 | Arg | Ser | Gly | Ile | Ala 155 | His | Asn | Met | Glu | Glu 160 |
| Ala | Leu | Ala | Val | Ala 165 | Ala | Glu | Val | Gly | Tyr 170 | Pro | Cys | Ile | Ile | Arg 175 | Pro |
| Ser | Phe | Thr 180 | Met | Gly | Gly | Thr | Gly | Gly 185 | Gly | Ile | Ala | Tyr | Asn 190 | Arg | Glu |
| Glu | Phe 195 | Glu | Glu | Ile | Cys | Glu | Arg 200 | Gly | Leu | Asp | Leu | Ser 205 | Pro | Thr | Lys |
| Glu | Leu 210 | Leu | Ile | Asp | Glu | Ser 215 | Leu | Ile | Gly | Trp | Lys 220 | Glu | Tyr | Glu | Met |
| Glu 225 | Val | Val | Arg | Asp | Lys 230 | Asn | Asp | Asn | Cys | Ile 235 | Ile | Val | Cys | Ser | Ile 240 |
| Glu | Asn | Phe | Asp | Ala 245 | Met | Gly | Ile | His | Thr 250 | Gly | Asp | Ser | Ile | Thr 255 | Val |
| Ala | Pro | Ala | Gln 260 | Thr | Leu | Thr | Asp | Lys 265 | Glu | Tyr | Gln | Ile | Met | Arg | Asn |
| Ala | Ser 275 | Met | Ala | Val | Leu | Arg | Glu | Ile 280 | Gly | Val | Glu | Thr 285 | Gly | Gly | Ser |
| Asn | Val 290 | Gln | Phe | Ser | Val | Asn 295 | Pro | Lys | Thr | Gly | Arg 300 | Leu | Ile | Val | Ile |
| Glu 305 | Met | Asn | Pro | Arg | Val 310 | Ser | Arg | Ser | Ser | Ala 315 | Leu | Ala | Ser | Lys | Ala 320 |
| Thr | Gly | Phe | Pro | Ile | Ala | Lys | Val | Ala | Ala | Lys | Leu | Ala | Val | Gly | Tyr |

Gln Gln Val Gln Lys Leu Ala Phe Glu Leu Gln Val Arg Gly Leu Met
 820 825 830
 Asn Val Gln Phe Ala Val Lys Asp Asn Glu Val Tyr Leu Ile Glu Val
 835 840 845
 Asn Pro Arg Ala Ala Arg Thr Val Pro Phe Val Ser Lys Ala Thr Gly
 850 855 860
 Ile Pro Leu Ala Lys Val Ala Ala Arg Val Met Ala Gly Gln Thr Leu
 865 870 875 880
 Ala Gln Gln Gly Val Thr Lys Glu Ile Ile Pro Pro Tyr Tyr Ser Val
 885 890 895
 Lys Glu Val Val Leu Pro Phe Asn Lys Phe Pro Gly Val Asp Pro Leu
 900 905 910
 Leu Gly Pro Glu Met Arg Ser Thr Gly Glu Val Met Gly Val Gly Arg
 915 920 925
 Thr Phe Ala Glu Ala Phe Ala Lys Ala Gln Leu Gly Ser Ser Ser Thr
 930 935 940
 Met Arg Lys Ser Gly Arg Ala Leu Leu Ser Val Arg Glu Gly Asp Lys
 945 950 955 960
 Glu Arg Val Val Asp Leu Ala Ala Lys Leu Leu Lys Gln Gly Phe Glu
 965 970 975
 Leu Asp Ala Thr His Gly Thr Ala Ile Val Leu Gly Glu Ala Gly Ile
 980 985 990
 Asn Pro Arg Leu Val Asn Lys Val His Glu Gly Arg Pro His Ile Gln
 995 1000 1005
 Asp Arg Ile Lys Asn Gly Glu Tyr Thr Tyr Ile Ile Asn Thr Thr Ala
 1010 1015 1020
 Gly Arg Gln Ala Ile Glu Asp Ser Lys Leu Ile Arg Arg Ser Ala Leu
 1025 1030 1035 1040
 Gln Tyr Lys Val His Tyr Asp Thr Thr Leu Asn Gly Gly Phe Ala Thr
 1045 1050 1055
 Ala Met Ala Leu Asn Ala Asp Ala Thr Glu Lys Val Ile Ser Val Gln
 1060 1065 1070
 Glu Met His Ala Gln Ile Ser Lys
 1075 1080

<210> 7432

<211> 433

<212> PRT

<213> Enterobacter cloacae

<400> 7432

Asn Gly Lys Ser Met Lys Asn Trp Lys Thr Leu Leu Leu Gly Val Ala
 1 5 10 15
 Met Val Ala Asn Thr Ser Phe Ala Ala Pro Gln Val Val Asp Lys Val
 20 25 30
 Ala Ala Val Val Asn Asn Gly Val Val Leu Glu Ser Asp Val Asp Gly
 35 40 45
 Leu Met Lys Ser Val Lys Leu Asn Ser Gly Gln Ala Gly Gln Gln Leu
 50 55 60
 Pro Asp Asp Ala Thr Leu Arg His Gln Ile Leu Glu Arg Leu Ile Met
 65 70 75 80
 Asp Gln Ile Val Leu Gln Met Gly Gln Lys Met Gly Val Lys Ile Ser
 85 90 95
 Asp Glu Gln Leu Asp Gln Ala Ile Ala Asn Ile Ala Lys Gln Asn Asn
 100 105 110
 Ile Thr Pro Asp Gln Met Arg Ser Arg Leu Ala Tyr Asp Gly Ile Ser
 115 120 125
 Tyr Ala Thr Tyr Arg Asn Gln Ile Arg Lys Glu Met Leu Ile Ser Glu
 130 135 140
 Val Arg Asn Asn Glu Val Arg Arg Arg Val Thr Ile Leu Pro Gln Glu
 145 150 155 160

Val Asp Ala Leu Ala Lys Gln Val Gly Asn Gln Asn Asp Ala Ser Thr
 165 170 175
 Glu Leu Asn Leu Ser His Ile Leu Ile Pro Leu Pro Glu Asn Pro Thr
 180 185 190
 Ser Asp Gln Ala Ala Glu Ala Glu Ser Gln Ala Arg Ala Ile Val Glu
 195 200 205
 Gln Ala Arg Asn Gly Asp Asp Phe Gly Lys Leu Ala Ile Thr Tyr Ser
 210 215 220
 Ala Asp Gln Gln Ala Leu Lys Gly Gly Gln Met Gly Trp Gly Arg Ile
 225 230 235 240
 Gln Glu Leu Pro Ser Leu Phe Ala Gln Ala Leu Ser Thr Ala Lys Lys
 245 250 255
 Gly Asp Ile Val Gly Pro Ile Arg Ser Gly Val Gly Phe His Ile Leu
 260 265 270
 Lys Val Asn Asp Leu Arg Gly Gln Ser Gln Asn Ile Ser Val Thr Glu
 275 280 285
 Val His Ala Arg His Ile Leu Leu Lys Pro Ser Pro Ile Met Thr Asp
 290 295 300
 Asp Gln Ala Arg Ala Lys Leu Glu Gln Ile Ala Ala Asp Ile Lys Ser
 305 310 315 320
 Gly Lys Thr Thr Phe Asp Lys Ala Ala Lys Glu Phe Ser Gln Asp Pro
 325 330 335
 Gly Ser Ala Asn Gln Gly Gly Asp Leu Gly Trp Ala Ala Ala Asp Ile
 340 345 350
 Tyr Asp Pro Ala Phe Arg Asp Ala Leu Met Lys Leu Asn Lys Gly Gln
 355 360 365
 Met Ser Ala Pro Val His Ser Ser Phe Gly Trp His Leu Ile Gln Leu
 370 375 380
 Met Asp Thr Arg Asn Val Asp Lys Thr Asp Ala Ala Gln Lys Asp Arg
 385 390 395 400
 Ala Tyr Arg Met Leu Phe Asn Arg Lys Phe Ser Glu Glu Ala Ala Thr
 405 410 415
 Trp Met Gln Glu Gln Arg Ala Ser Ala Tyr Val Lys Val Leu Ser Asn
 420 425 430

<210> 7433

<211> 167

<212> PRT

<213> Enterobacter cloacae

<400> 7433

Arg Pro Ser Arg Thr Thr Ser Ala Ser Ala Pro Thr Thr Phe Ser Ala
 1 5 10 15
 Asp Lys Ala Asn Ala Pro Ser Val Val Asp Ala Pro Leu Val Ala Ser
 20 25 30
 Ser Gly Ile Ile Ala Thr Ser Gly Met Ala Ala Ile Ser Trp Asn Asn
 35 40 45
 Ser Thr Glu Lys Val Leu Arg Pro Ile Cys Asp Thr Val Arg Leu Arg
 50 55 60
 Ser Phe Ile Ala Cys Met Ala Ile Ala Val Glu Glu Ser Ala Ser Val
 65 70 75 80
 Met Pro Ile Asn Ser Ala Thr Phe His Ser Ile Pro Ser Arg Met Gln
 85 90 95
 Asn Pro Pro Asn Ser Arg Pro Gln Ala Ser Ile Cys Arg Ala Pro Pro
 100 105 110
 Pro Asn Thr Glu Ala Arg Ser Phe His Ser Arg Cys Gly Ser Asn Ser
 115 120 125
 Arg Pro Ile Thr Asn Ser Ile Ser Thr Thr Pro Ile Ser Ala Lys Cys
 130 135 140

Arg Ile Asp Ser Ala Ser Val Thr Ser Arg Lys Pro Gln Gly Pro Ile
 145 150 155 160
 Thr His Pro Ala Ile Arg
 165

<210> 7434

<211> 479

<212> PRT

<213> Enterobacter cloacae

<400> 7434

Phe Gly Leu Leu Ala Asp Arg Lys Leu Gln Gly Thr Ala Arg Val Leu
 1 5 10 15
 Asp Gln Val Trp Arg Phe Asn Ile Asp Tyr Thr Lys Val Ser Asp Pro
 20 25 30
 Tyr Tyr Phe Asn Asp Phe Asp Ser Lys Tyr Gly Ser Ser Thr Asp Gly
 35 40 45
 Tyr Ala Thr Gln Lys Phe Ser Val Gly Tyr Ala Ile Glu Asn Phe Asp
 50 55 60
 Ala Thr Val Ser Thr Lys Gln Phe Gln Val Phe Asp Thr Gln Ser Arg
 65 70 75 80
 Ser Thr Tyr Gly Ala Glu Pro Gln Leu Asp Val Asn Trp Tyr Gln Asn
 85 90 95
 Asp Val Gly Pro Phe Asp Thr Arg Val Tyr Ala Gln Ala Val His Phe
 100 105 110
 Val Asn Thr Asn Ser Asp Met Pro Glu Ser Thr Arg Leu His Ile Glu
 115 120 125
 Pro Thr Ile Asn Leu Pro Trp Ser Asn Asp Trp Ala Ser Leu Asn Thr
 130 135 140
 Glu Ala Lys Val Met Ala Thr His Tyr Gln Gln Lys Asn Leu Asp Trp
 145 150 155 160
 Tyr Asn Lys Arg Tyr Gly Thr Asp Leu Glu Glu Ser Val Asn Arg Thr
 165 170 175
 Leu Pro Gln Phe Lys Met Asp Gly Lys Leu Ile Phe Glu Arg Asp Met
 180 185 190
 Ala Leu Leu Ala Asp Gly Tyr Thr Gln Thr Leu Glu Pro Arg Met Gln
 195 200 205
 Tyr Leu Tyr Val Pro Tyr Arg Asp Gln Ser Lys Ile Gln Asn Tyr Asp
 210 215 220
 Ser Ser Phe Leu Gln Ser Asp Tyr Ser Gly Leu Phe Arg Asp Arg Thr
 225 230 235 240
 Tyr Gly Gly Leu Asp Arg Ile Ala Ser Ala Asn Gln Leu Thr Thr Gly
 245 250 255
 Val Thr Thr Arg Val Tyr Asp Asp Ala Ala Val Glu Arg Phe Asn Val
 260 265 270
 Ser Val Gly Gln Ile Tyr Tyr Phe Thr Glu Ser Arg Thr Gly Asp Asp
 275 280 285
 Asp Ile Asn Trp Glu Lys Asp Asn Lys Thr Gly Ser Leu Val Trp Ala
 290 295 300
 Gly Asp Thr Tyr Trp Arg Met Thr Asp Arg Trp Gly Leu Arg Gly Gly
 305 310 315 320
 Val Gln Tyr Asp Thr Arg Leu Asp Asn Ile Ala Thr Gly Ser Ala Ala
 325 330 335
 Ile Glu Tyr Arg Arg Asp Glu Asp Arg Met Leu Gln Leu Thr Tyr Arg
 340 345 350
 Tyr Ala Ser Pro Glu Tyr Ile Gln Ala Thr Leu Pro Asn Tyr Ala Asn
 355 360 365
 Thr Asp Gln Tyr Lys Asp Gly Ile Ser Gln Val Gly Thr Ala Ala Ser
 370 375 380
 Trp Pro Ile Ala Asp Arg Trp Ser Val Val Gly Ala Tyr Tyr Tyr Asp
 385 390 395 400


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<210> 7435
<211> 276
<212> PRT
<213> Enterobacter cloacae
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<210> 7436
<211> 127
<212> PRT
<213> Enterobacter cloacae
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Ala Met Ile Asp Ser Pro Arg Val Cys Val Gln Val Gln Ser Val Tyr

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Ile | Glu | Ser | Gln | Ser | Thr | Pro | Asp | Glu | Glu | Arg | Phe | Val | Phe |
| | | | 20 | | | | | 25 | | | | 30 | Ala |
| Thr | Val | Thr | Ile | Arg | Asn | Leu | Gly | Arg | Met | Pro | Val | Gln | Leu |
| | | 35 | | | | | 40 | | | | | 45 | Leu |
| Arg | Tyr | Trp | Leu | Ile | Thr | Asn | Gly | Asn | Gly | Arg | Glu | Ile | Glu |
| | 50 | | | | | 55 | | | | 60 | | Val | Gln |
| Gly | Glu | Gly | Val | Val | Gly | Glu | Gln | Pro | His | Ile | Ala | Pro | Gly |
| 65 | | | | | 70 | | | | 75 | | | | Glu |
| Tyr | Gln | Tyr | Thr | Ser | Gly | Ala | Val | Ile | Glu | Thr | Pro | Leu | Gly |
| | | | | 85 | | | | 90 | | | | | Thr |
| Gln | Gly | His | Tyr | Glu | Met | Val | Asp | Ala | Asp | Gly | Asn | Ala | Phe |
| | | | 100 | | | | | 105 | | | | 110 | Arg |
| Ala | Ile | Pro | Val | Phe | Arg | Leu | Ala | Val | Pro | Thr | Leu | Ile | His |
| | | 115 | | | | | 120 | | | | | 125 | |

<210> 7437

<211> 350

<212> PRT

<213> Enterobacter cloacae

<400> 7437

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Arg | Asn | Leu | Asp | Ala | Gly | Thr | Thr | Arg | Gln | Arg | Leu | Arg | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Val | Glu | Gln | Leu | Met | Lys | Pro | His | Arg | Val | Val | Ile | Thr | Pro | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Pro | Ala | Gly | Ile | Gly | Pro | Asp | Leu | Val | Val | Gln | Leu | Ala | Gln | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Trp | Pro | Val | Glu | Leu | Val | Val | Cys | Ala | Asp | Ala | Thr | Leu | Leu | Gln |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Asp | Arg | Ala | Ala | Leu | Leu | Gly | Leu | Pro | Leu | Thr | Leu | Leu | Pro | Tyr | Val |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Glu | Gly | Gln | Gln | Pro | Ala | Pro | Gln | Gln | Ser | Gly | Thr | Leu | Thr | Leu | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ser | Val | Pro | Leu | Arg | Ala | Pro | Val | Val | Pro | Gly | Glu | Leu | His | Thr | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Gly | His | Tyr | Val | Val | Glu | Thr | Leu | Ala | Arg | Ala | Cys | Asp | Gly | Cys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Gln | Gly | Glu | Phe | Ala | Ala | Leu | Ile | Thr | Gly | Pro | Val | His | Lys | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Ile | Asn | Asp | Ala | Gly | Ile | Pro | Phe | Thr | Gly | His | Thr | Glu | Phe | Phe |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Glu | Glu | Arg | Ser | His | Ser | Pro | Lys | Val | Val | Met | Met | Leu | Ala | Thr | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Met | Arg | Val | Ala | Leu | Val | Thr | Thr | His | Leu | Pro | Ile | Lys | Ala | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Asp | Ala | Ile | Thr | Pro | Glu | Leu | Leu | Arg | Glu | Ile | Ile | Gly | Ile | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| His | His | Asp | Leu | Gln | Thr | Lys | Phe | Gly | Ile | Pro | Gln | Pro | His | Val | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Cys | Gly | Leu | Asn | Pro | His | Ala | Gly | Glu | Gly | Gly | His | Met | Gly | Thr |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Glu | Glu | Ile | Asp | Thr | Ile | Ile | Pro | Val | Leu | Glu | Glu | Met | Arg | Ala | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Met | Asn | Leu | Ser | Gly | Pro | Leu | Pro | Ala | Asp | Thr | Leu | Phe | Gln | Pro |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Lys | Tyr | Leu | Asp | Asn | Ala | Asp | Ala | Val | Leu | Ala | Met | Tyr | His | Asp | Gln |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Leu | Pro | Val | Leu | Lys | Tyr | Gln | Gly | Phe | Gly | Arg | Gly | Val | Asn | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Leu | Gly | Leu | Pro | Phe | Ile | Arg | Thr | Ser | Val | Asp | His | Gly | Thr | Ala |

305 310 315 320
 Leu Asp Leu Ala Gly Gln Gly Lys Ala Asp Val Gly Ser Phe Ile Thr
 325 330 335
 Ala Leu Asn Leu Ala Ile Lys Met Ile Val Asn Thr Gln
 340 345 350

<210> 7438

<211> 323

<212> PRT

<213> Enterobacter cloacae

<400> 7438

Leu Lys Leu Arg Trp Val Pro Cys Arg Ala Ile Thr Lys Trp Ser Met
 1 5 10 15
 Pro Thr Val Met Leu Ser Ala Leu Leu Phe Pro Tyr Ser Val Ser Pro
 20 25 30
 Tyr Leu His Leu Phe Ile Asn Leu Met Ser Thr Tyr Leu Ile Gly Asp
 35 40 45
 Val His Gly Cys Tyr Asp Glu Leu Ile Ala Leu Leu Lys Gln Val Asp
 50 55 60
 Phe Thr Pro Gly Gln Asp Thr Leu Trp Leu Thr Gly Asp Leu Val Ala
 65 70 75 80
 Arg Gly Pro Gly Ser Leu Asp Val Leu Arg Tyr Val Lys Ser Leu Gly
 85 90 95
 Asp Ser Val Arg Met Val Leu Gly Asn His Asp Leu His Leu Leu Ala
 100 105 110
 Val Tyr Ala Gly Ile Ser Arg Asn Lys Pro Lys Asp Arg Ile Thr Pro
 115 120 125
 Leu Leu Glu Ala Pro Asp Ala Asp Glu Leu Leu Asn Trp Leu Arg Arg
 130 135 140
 Gln Pro Leu Leu Gln Ile Asp Glu Glu Lys Lys Leu Val Met Ala His
 145 150 155 160
 Ala Gly Ile Thr Pro Gln Trp Asp Leu Glu Thr Ala Lys Thr Cys Ala
 165 170 175
 Arg Asp Thr Glu Ala Val Leu Ala Ser Asp Ser Tyr Pro Phe Phe Leu
 180 185 190
 Asp Ala Met Tyr Gly Asp Met Pro Asn Asn Trp Ser Asp Asp Leu Ser
 195 200 205
 Gly Leu Ala Arg Leu Arg Phe Ile Thr Asn Ala Phe Thr Arg Met Arg
 210 215 220
 Tyr Cys Phe Pro Asn Gly Gln Leu Asp Met Tyr Cys Lys Asp Thr Pro
 225 230 235 240
 Glu Asn Ala Pro Ala Pro Leu Lys Pro Trp Phe Ala Ile Pro Gly Pro
 245 250 255
 Val Thr Asn Glu Tyr Ser Val Val Phe Gly His Trp Ala Ser Leu Glu
 260 265 270
 Gly Lys Gly Thr Pro Glu Asn Ile Tyr Ala Leu Asp Thr Gly Cys Cys
 275 280 285
 Trp Gly Gly Asp Leu Thr Cys Leu Arg Trp Glu Asp Lys Thr Tyr Phe
 290 295 300
 Val Gln Pro Ser Asn Arg Gln Leu Asp Leu Gly Glu Gly Glu Ala Val
 305 310 315 320
 Ala Ser

<210> 7439

<211> 157

<212> PRT

<213> Enterobacter cloacae

<400> 7439

Cys Ala Ala Gly Cys Gln Gln Arg Asp His Arg His Gln Arg Asp Gly
 1 5 10 15
 Ser Asn Ile Leu Glu Gln Gln Tyr Gly Glu Gly Ala Ala Pro His Leu
 20 25 30
 Arg His Arg Gln Val Thr Leu Val His Ser Leu His Gly Asn Ser Arg
 35 40 45
 Arg Gly Glu Arg Gln Arg His Ala Asp Gln Leu Arg Asp Phe Pro Leu
 50 55 60
 His Pro Glu Gln Asn Ala Glu Pro Ala Gln Gln Gln Thr Ala Gly Gln
 65 70 75 80
 His Leu Gln Ser Thr Ser Ala Lys His Arg Gly Ala Gln Phe Pro Gln
 85 90 95
 Pro Leu Arg Ile Gln Leu Gln Ala Asn His Glu Gln His Lys His His
 100 105 110
 Ala Asp Leu Arg Lys Met Gln Asp Arg Leu Gly Ile Arg His Gln Pro
 115 120 125
 Lys Thr Pro Gly Ala Asn Tyr Thr Pro Gly Asn Gln Ile Ala Glu His
 130 135 140
 Arg Ala Gln Pro Gln Thr Asn Arg His Gly His Asn
 145 150 155

<210> 7440

<211> 1034

<212> PRT

<213> Enterobacter cloacae

<400> 7440

Lys Asn Asn Asn Phe Met Leu Phe Cys Phe Glu Leu Asn Leu Lys Asp
 1 5 10 15
 Ser Gln Tyr Thr Phe Tyr Thr Arg Tyr Leu Met Phe Leu Leu Thr Gln
 20 25 30
 Met Asp Val Tyr Met Ser Lys Lys Phe Phe Lys Leu Asn Asn Thr Thr
 35 40 45
 Lys Thr Leu Gly Lys Ile Phe Pro Ala Leu Leu Ile Cys Thr Pro Ala
 50 55 60
 Val Ala Phe Ser Ala Ile Ile Asp Gln Ser Thr Ser Val Pro Gln Asp
 65 70 75 80
 Phe Ser Ala Asp Ala Glu Tyr Val Ile Asn Lys Asp Val Thr Ile Ser
 85 90 95
 Ser Ala Gly Ser Glu Ala Ala Val Ser Val Thr Gly Phe Thr Thr Thr
 100 105 110
 Thr Thr Thr Asn Tyr Gly Asn Ile Ser Gly Thr Gly Asn Gly Leu Asp
 115 120 125
 Ile Asn Thr Gly Glu Gln Arg Ile Leu Ile Asn Asn Asp Ile Gly Ala
 130 135 140
 Thr Ile Ser Ser Thr Thr Ala Asn Ala Val Asn Ile Gln Ser Met Leu
 145 150 155 160
 Gly Asp Phe Asn Asn Ser Gly Asn Ile Ile Gly Ala Glu Asn Gly Met
 165 170 175
 Phe Val Gly Glu Asn Ser Ser Ala Val Asn Ile Ile Asn Thr Ser Thr
 180 185 190
 Gly Met Ile Lys Gly Lys Thr Gly Leu Ser Thr Arg Tyr Gly Ile Gly
 195 200 205
 Ile Asn Asn Ser Gly Ala Ile Ile Gly Thr Asn Gly Asp Ala Ile Thr
 210 215 220
 Ala Thr Asn Gly Asn Thr Lys Leu Thr Asn Asn Ala Leu Val Gln Gly
 225 230 235 240
 Thr Glu Asn Gly Ile Asn Val Lys Asp Thr Ala Lys Leu Asp Ile Lys
 245 250 255
 Asn Ser Gly Thr Ile Ser Gly Asn Thr Ala Ala Ile Met Phe Ala Ser
 260 265 270

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Lys | Asn | Asn | Thr | Leu | Val | Leu | Asp | Thr | Gly | Ser | Val | Leu | Val | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Val | Ile | Ser | Thr | Asn | Ser | Thr | Gly | Asn | Thr | Leu | Thr | Leu | Ile | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Gly | Thr | Glu | Asp | Ser | Asn | Phe | Val | Gly | Leu | Asn | Glu | Gly | Asp | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Phe | Ala | Ser | Val | Thr | Met | Asn | Gly | Glu | Asn | Trp | Ala | Leu | Ser | Gly | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Asp | Ile | Ile | Gly | Ser | Val | Asp | Ser | Leu | Met | Ile | Asp | Lys | Gly | Ala |
| | | 340 | | | | | | 345 | | | | 350 | | | |
| Leu | Thr | Leu | Ala | Gly | Glu | Val | Ser | Asn | Thr | Gly | Asn | Thr | Arg | Val | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | His | Ala | Ser | Leu | Gln | Leu | Gly | Asp | Gly | Glu | Lys | Thr | Ala | Thr | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Gly | Gly | Ile | Thr | Asn | Asn | Gly | Thr | Val | Ile | Phe | Asn | Gln | Gly | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asp | Phe | Thr | Phe | Ala | Thr | Asp | Met | Thr | Gly | Ser | Gly | Asn | Val | Glu | Lys |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Val | Asp | Ser | Asn | Thr | Leu | Thr | Leu | Thr | Gly | Lys | Asn | Ser | Tyr | Lys | Gly |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Thr | Val | Leu | His | Gly | Gly | Thr | Thr | Leu | Val | Ser | Thr | Gly | Ala | Thr |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Leu | Gly | Val | Lys | Gly | Ser | Asn | Ala | Thr | Val | Thr | Val | Glu | Asn | Gly | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Thr | Phe | Ala | Thr | Ala | Gly | Glu | Val | Asn | Asn | Asn | Ile | Ala | Val | Leu | Ser |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gly | Gly | Thr | Leu | Ala | Ala | Trp | Asn | Ala | Val | Gln | Gly | Asn | Ser | Thr | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ser | Ala | Ser | Asp | Val | Asp | Thr | Ile | Asn | Gly | Asn | Val | Thr | Asn | Gly | Gly |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Thr | Leu | Leu | Leu | Ser | Ala | Ala | Asp | Asn | Ser | Val | Gly | Asn | Asn | Phe | Ser |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ile | Asn | Gly | Asp | Tyr | Thr | Gly | Ser | Asp | Gly | Ser | Gln | Ile | Val | Met | Asn |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Ser | Thr | Leu | Gly | Glu | Asp | Asn | Ser | Pro | Thr | Asp | His | Leu | Thr | Ile | Thr |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Gly | Ser | Ser | Phe | Gly | Gln | Ser | Gly | Val | Ser | Ile | Thr | Asn | Ile | Gly | Gly |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Ala | Gly | Ala | Gln | Thr | Ile | Asn | Gly | Met | Glu | Ile | Val | Ser | Ile | Gly | Gly |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Ser | Ser | Glu | Ala | Gln | Leu | Thr | Leu | Ala | Lys | Pro | Val | Val | Ala | Gly | Ala |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Trp | Glu | Tyr | Asn | Leu | Tyr | Gln | His | Ser | Asp | Gly | Asn | Trp | Tyr | Leu | Glu |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ser | Lys | Ala | Thr | Pro | Ser | Asp | Asp | Pro | Ser | Asp | Asp | Thr | Asp | Asp | Gly |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Gly | Asn | Thr | Asp | Asp | Gly | Gly | Asn | Thr | Asp | Asn | Gly | Gly | Asn | Thr | Asp |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Asn | Gly | Gly | Asn | Thr | Asp | Asn | Gly | Gly | Asn | Thr | Asp | Asn | Gly | Gly | Asn |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Thr | Asp | Asn | Gly | Gly | Asn | Thr | Asp | Asn | Gly | Gly | Asn | Thr | Asp | Asn | Gly |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Gly | Asn | Thr | Asp | Asn | Gly | Gly | Asn | Thr | Asp | Asn | Gly | Gly | Asn | Thr | Asp |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Asn | Gly | Gly | Asn | Thr | Asp | Asn | Gly | Gly | Ser | Thr | Asp | Asn | Gly | Gly | Asn |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Asn | Ala | Pro | Glu | Val | Met | Ala | Pro | Glu | Val | Gly | Ala | Tyr | Leu | Gly | Asn |
| | | | 725 | | | | | | 730 | | | | | 735 | |
| Tyr | Leu | Ala | Ala | Gln | Gly | Met | Phe | Leu | His | Lys | Arg | Asp | Asp | Arg | Asp |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Gln | Ile | Thr | Phe | Arg | Asn | Glu | Asp | Asp | Leu | Asn | Thr | Trp | Met | Tyr | Val |


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<210> 7441
<211> 407
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Phe | Met | Ser | Pro | Ile | Glu | Lys | Ser | Ser | Lys | Leu | Asp | Asn | Val | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Asp | Ile | Arg | Gly | Pro | Val | Leu | Lys | Glu | Ala | Lys | Arg | Leu | Glu | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Gly | Asn | Lys | Val | Leu | Lys | Leu | Asn | Ile | Gly | Asn | Pro | Ala | Pro | Phe |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Gly | Phe | Glu | Ala | Pro | Asp | Glu | Ile | Leu | Val | Asp | Val | Ile | Arg | Asn | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Pro | Thr | Ala | Gln | Gly | Tyr | Cys | Asp | Ser | Lys | Gly | Leu | Tyr | Ser | Ala | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Ala | Ile | Met | Gln | His | Tyr | Gln | Ala | Arg | Gly | Met | Arg | Asp | Val | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Glu | Asp | Ile | Tyr | Ile | Gly | Asn | Gly | Val | Ser | Glu | Leu | Ile | Val | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Met | Gln | Ala | Leu | Leu | Asn | Ser | Gly | Asp | Glu | Met | Leu | Val | Pro | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Asp | Tyr | Pro | Leu | Trp | Thr | Ala | Ala | Val | Ser | Leu | Ser | Ser | Gly | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Val | His | Tyr | Leu | Cys | Asp | Glu | Ser | Ser | Asp | Trp | Phe | Pro | Asp | Leu |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Asp | Asp | Ile | Arg | Ala | Lys | Ile | Thr | Pro | Arg | Thr | Arg | Gly | Ile | Val |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Ile | Asn | Pro | Asn | Asn | Pro | Thr | Gly | Ala | Val | Tyr | Ser | Lys | Glu | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | |
| Met | Glu | Ile | Val | Glu | Ile | Ala | Arg | Gln | His | Asn | Leu | Ile | Ile | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | Ala |
| Asp | Glu | Ile | Tyr | Asp | Lys | Ile | Leu | Tyr | Asp | Ala | Ala | Gln | His | His |
| | 210 | | | | | 215 | | | | 220 | | | | Ser |
| Ile | Ala | Ala | Leu | Ala | Pro | Asp | Leu | Leu | Thr | Val | Thr | Phe | Asn | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | Leu |
| Ser | Lys | Thr | Tyr | Arg | Val | Ala | Gly | Phe | Arg | Gln | Gly | Trp | Met | Val |
| | | | | 245 | | | | | 250 | | | | | Leu |
| Asn | Gly | Pro | Lys | Lys | His | Ala | Lys | Gly | Tyr | Ile | Glu | Gly | Leu | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | Met |
| Leu | Ala | Ser | Met | Arg | Leu | Cys | Ala | Asn | Val | Pro | Ala | Gln | His | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | Ile |
| Gln | Thr | Ala | Leu | Gly | Gly | Tyr | Gln | Ser | Ile | Ser | Glu | Phe | Ile | Val |
| | 290 | | | | | 295 | | | | | 300 | | | Pro |
| Gly | Gly | Arg | Leu | Tyr | Glu | Gln | Arg | Asn | Arg | Ala | Trp | Glu | Leu | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | Asn |
| Asp | Ile | Pro | Gly | Val | Ser | Cys | Val | Lys | Pro | Asn | Gly | Ala | Leu | Tyr |
| | | | | 325 | | | | | 330 | | | | | Met |
| Phe | Pro | Lys | Ile | Asp | Ala | Lys | Arg | Phe | Asn | Ile | His | Asp | Asp | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | Lys |
| Met | Val | Leu | Asp | Phe | Leu | Leu | Gln | Glu | Lys | Val | Leu | Leu | Val | Gln |
| | | 355 | | | | | 360 | | | | | 365 | | Gly |
| Thr | Ala | Phe | Asn | Trp | Pro | Trp | Pro | Asp | His | Val | Arg | Ile | Val | Thr |
| | 370 | | | | | 375 | | | | | 380 | | | Leu |
| Pro | Arg | Glu | Asp | Asp | Leu | Glu | Met | Ala | Ile | Ser | Arg | Phe | Gly | Arg |
| 385 | | | | | 390 | | | | | 395 | | | | Phe |
| Leu | Ser | Gly | Tyr | His | Gln | | | | | | | | | 400 |
| | | | | 405 | | | | | | | | | | |

<210> 7442

<211> 201

<212> PRT

<213> Enterobacter cloacae

<400> 7442

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Met | Ser | Gln | Ser | His | Phe | Phe | Ala | His | Leu | Ser | Arg | Leu | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Asn | Arg | Trp | Pro | Leu | Met | Arg | Asn | Val | Arg | Thr | Glu | Asn | Val | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | His | Ser | Leu | Gln | Val | Ala | Met | Val | Ala | His | Ala | Leu | Ala | Ala | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Asn | Arg | Lys | Phe | Asn | Gly | Gln | Val | Asn | Ala | Glu | Arg | Ile | Ala | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Ala | Met | Tyr | His | Asp | Ala | Ser | Glu | Val | Leu | Thr | Gly | Asp | Leu | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Thr | Pro | Val | Lys | Tyr | Phe | Asn | Ser | Gln | Ile | Ala | Gln | Glu | Tyr | Lys | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Glu | Lys | Ile | Ala | Gln | Gln | Lys | Leu | Ile | Asp | Met | Val | Pro | Glu | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Arg | Asp | Ile | Phe | Gly | Pro | Leu | Ile | Asp | Glu | His | Gln | Tyr | Thr | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Glu | Lys | Ser | Leu | Val | Lys | Gln | Ala | Asp | Ala | Leu | Cys | Ala | Tyr | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | Cys | Leu | Glu | Glu | Leu | Ser | Ala | Gly | Asn | Asn | Glu | Phe | Leu | Leu | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Thr | Arg | Leu | Glu | Lys | Thr | Leu | Glu | Ser | Arg | Arg | Ser | Glu | Glu | Met |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 165 | | | | 170 | | | | | 175 | | | | |
| Asp | Tyr | Phe | Met | Arg | Met | Phe | Val | Pro | Ser | Phe | His | Leu | Ser | Leu | Asp | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Glu | Ile | Ser | Gln | Asp | Ser | Pro | Leu | | | | | | | | | | |
| | | 195 | | | | | 200 | | | | | | | | | | |

<210> 7443

<211> 145

<212> PRT

<213> Enterobacter cloacae

<400> 7443

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Arg | Met | Lys | Leu | Asn | Arg | Val | Leu | Ser | Ala | Gly | Arg | Cys | Met | Ser | Leu | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Thr | Arg | Lys | Arg | Arg | Ser | Thr | Gly | Lys | Val | Thr | Leu | Ala | Asp | Val | Ala | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Gln | Leu | Ala | Gly | Val | Gly | Thr | Met | Thr | Val | Ser | Arg | Ala | Leu | Arg | Thr | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Pro | Glu | Gln | Val | Ser | Asp | Lys | Leu | Arg | Glu | Lys | Ile | Glu | Ala | Ala | Val | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Gln | Glu | Leu | Gly | Tyr | Met | Pro | Asn | Leu | Ala | Ala | Ser | Ala | Leu | Ala | Ser | | |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 | | |
| Ala | Ser | Ser | Trp | Thr | Ile | Ala | Met | Val | Val | Pro | Asn | Leu | Ser | Glu | Ala | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Gly | Cys | Ser | Glu | Met | Phe | Ala | Gly | Leu | Gln | Gln | Val | Leu | Gln | Pro | Ala | | |
| | | | 100 | | | | 105 | | | | | | 110 | | | | |
| Gly | Tyr | Gln | Ile | Met | Leu | Ala | Glu | Ser | Gln | His | Arg | Leu | Glu | Gln | Glu | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Glu | Lys | Leu | Leu | Glu | Thr | Leu | Leu | Ala | Ser | Asn | Ile | Ala | Ala | Ala | Ile | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |

145

<210> 7444

<211> 208

<212> PRT

<213> Enterobacter cloacae

<400> 7444

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Leu | Ser | Val | Glu | His | Phe | Asp | Thr | Val | Arg | His | Trp | Leu | Lys | Asn | Ala | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Tyr | Ile | Pro | Val | Met | Glu | Met | Gly | Ala | Met | Arg | Ala | Asp | Pro | Ile | Asp | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Met | Asn | Ile | Gly | Ile | Asp | Asn | Val | Ala | Ala | Met | Tyr | Glu | Leu | Thr | Glu | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Met | Val | Ile | Gln | Arg | Gly | Tyr | Gln | Asn | Ile | Gly | Val | Leu | Cys | Ala | Asn | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Gln | Glu | Gln | Trp | Ile | Phe | Gln | Gln | His | Leu | Gln | Gly | Trp | Tyr | Lys | Ala | | |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 | | |
| Met | Leu | Arg | His | His | Leu | Ala | Pro | Asn | Arg | Val | Ile | Asn | Ala | Ala | Met | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| Pro | Pro | Asn | Phe | Ser | Thr | Gly | Ala | Ala | Gln | Leu | Pro | Glu | Phe | Leu | Leu | | |
| | | | 100 | | | | 105 | | | | | | 110 | | | | |
| Ala | Trp | Pro | Glu | Leu | Asp | Ala | Leu | Val | Cys | Val | Ser | Asp | Glu | Leu | Ala | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Cys | Gly | Ala | Leu | Tyr | Glu | Cys | Gln | Arg | Arg | Arg | Ile | Lys | Val | Pro | Asp | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Asp | Leu | Ala | Val | Val | Gly | Phe | Gly | Asp | Ser | Asp | Val | Ser | Arg | Val | Cys | | |
| | 145 | | | | 150 | | | | | 155 | | | | | 160 | | |
| Gln | Pro | Pro | Leu | Thr | Thr | Met | Ala | Val | Pro | His | Arg | Lys | Ile | Gly | Ile | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |

Glu Ala Gly Lys Ala Leu Leu Glu Arg Leu Asn Asp Gly Asp Trp Arg
 180 185 190
 Asp His Lys Pro Ile Ala Ser Ser Leu Cys Leu Arg Glu Ser Cys
 195 200 205

<210> 7445

<211> 413

<212> PRT

<213> Enterobacter cloacae

<400> 7445

Arg Phe Phe Ser His Val Ser Ile Ile Gly Thr Ser Met Ser Ser Lys
 1 5 10 15
 Leu Val Leu Val Leu Asn Cys Gly Ser Ser Ser Leu Lys Phe Ala Ile
 20 25 30
 Ile Asp Ala Leu Asn Gly Asp Glu Tyr Leu Ser Gly Leu Ala Glu Cys
 35 40 45
 Phe His Leu Pro Glu Ala Arg Ile Lys Trp Lys Met Asp Gly Ser Lys
 50 55 60
 Gln Glu Ala Ala Leu Gly Ala Gly Ala Ala His Ser Glu Ala Leu Asn
 65 70 75 80
 Phe Ile Val Asn Thr Ile Leu Ala Gln Lys Pro Glu Leu Ser Ala Gln
 85 90 95
 Leu Thr Ala Ile Gly His Arg Ile Val His Gly Gly Glu Lys Tyr Thr
 100 105 110
 Ser Ser Val Val Ile Asp Asp Ser Val Ile Gln Gly Ile Lys Asp Ser
 115 120 125
 Ala Ser Phe Ala Pro Leu His Asn Pro Ala His Leu Ile Gly Ile Ala
 130 135 140
 Glu Ala Leu Lys Ser Phe Pro Ser Leu Lys Asp Lys Asn Val Ala Val
 145 150 155 160
 Phe Asp Thr Ala Phe His Gln Thr Met Pro Glu Glu Ser Tyr Leu Tyr
 165 170 175
 Ala Leu Pro Tyr Ser Leu Tyr Lys Glu His Gly Val Arg Arg Tyr Gly
 180 185 190
 Ala His Gly Thr Ser His Phe Tyr Val Thr Gln Glu Ala Ala Lys Val
 195 200 205
 Leu Asn Lys Pro Val Glu Glu Val Asn Ile Ile Thr Cys His Leu Gly
 210 215 220
 Asn Gly Gly Ser Val Ser Ala Ile Arg Asn Gly Lys Cys Val Asp Thr
 225 230 235 240
 Ser Met Gly Leu Thr Pro Leu Glu Gly Leu Val Met Gly Thr Arg Ser
 245 250 255
 Gly Asp Ile Asp Pro Ala Ile Ile Phe His Leu His Asp Thr Leu Gly
 260 265 270
 Met Ser Val Asp Asp Ile Asn Lys Met Leu Thr Lys Glu Ser Gly Leu
 275 280 285
 Leu Gly Leu Thr Glu Val Thr Ser Asp Cys Arg Tyr Val Glu Asp Asn
 290 295 300
 Tyr Ala Glu Lys Ala Asp Ala Lys Arg Ala Met Asp Val Tyr Cys His
 305 310 315 320
 Arg Leu Ala Lys Tyr Ile Gly Ser Tyr Thr Ala Leu Met Glu Gly Arg
 325 330 335
 Leu Asp Ala Val Ile Phe Thr Gly Gly Ile Gly Glu Asn Ala Ala Met
 340 345 350
 Val Arg Glu Leu Ser Leu Gly Lys Leu Gly Val Leu Gly Phe Glu Val
 355 360 365
 Asp His Glu Arg Asn Leu Ala Arg Phe Gly Lys Ser Gly Phe Ile
 370 375 380
 Asn Lys Glu Gly Thr Arg Pro Ala Ile Val Ile Pro Thr Asn Glu Glu
 385 390 395 400

Leu Val Ile Ala Gln Asp Ala His Arg Leu Thr Ala
405 410

<210> 7446

<211> 715

<212> PRT

<213> Enterobacter cloacae

<400> 7446

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Ser | Arg | Thr | Ile | Met | Leu | Ile | Pro | Thr | Gly | Thr | Ser | Val | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Thr | Ser | Val | Ser | Leu | Gly | Val | Ile | Arg | Ala | Met | Glu | Arg | Lys | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Arg | Leu | Ser | Val | Phe | Lys | Pro | Ile | Ala | Gln | Pro | Arg | Ala | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Ala | Pro | Asp | Gln | Thr | Thr | Thr | Ile | Val | Arg | Lys | Asn | Ser | Asn | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ala | Ala | Glu | Pro | Leu | Lys | Met | Ser | His | Val | Glu | Ser | Leu | Leu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Asn | Gln | Lys | Asp | Val | Leu | Met | Glu | Glu | Ile | Ile | Ala | Asn | Tyr | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Asn | Ala | Gln | Asp | Ala | Glu | Val | Val | Leu | Val | Glu | Gly | Leu | Val | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Arg | Lys | His | Gln | Phe | Ala | Gln | Ser | Leu | Asn | Phe | Glu | Ile | Ala | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Asn | Ala | Glu | Ile | Val | Phe | Val | Met | Ser | Gln | Gly | Thr | Asp | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Glu | Gln | Leu | Lys | Glu | Arg | Ile | Glu | Leu | Thr | Arg | Ser | Ser | Phe | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ala | Lys | Asn | Thr | Ser | Ile | Thr | Gly | Val | Ile | Val | Asn | Lys | Leu | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Pro | Val | Asp | Glu | Gln | Gly | Arg | Thr | Arg | Pro | Asp | Leu | Ser | Glu | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Asp | Asp | Ser | Ser | Lys | Ala | Lys | Val | Ile | Lys | Val | Asp | Pro | Ala | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Gln | Asp | Ser | Ser | Pro | Leu | Pro | Val | Leu | Gly | Ala | Val | Pro | Trp | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Phe | Asp | Leu | Ile | Ala | Thr | Arg | Ala | Ile | Asp | Met | Ala | Arg | His | Leu | Asn |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Thr | Val | Ile | Asn | Glu | Gly | Asp | Ile | Asn | Thr | Arg | Arg | Val | Lys | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Thr | Phe | Cys | Ala | Arg | Ser | Ile | Pro | His | Met | Leu | Glu | His | Phe | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Gly | Ser | Leu | Leu | Val | Thr | Ser | Ala | Asp | Arg | Pro | Asp | Val | Leu | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Ala | Cys | Leu | Ala | Ala | Met | Asn | Gly | Val | Glu | Ile | Gly | Ala | Ile | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Thr | Gly | Gly | Tyr | Glu | Met | Asp | Ala | Arg | Ile | Ser | Lys | Leu | Cys | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Arg | Ala | Phe | Ala | Thr | Gly | Leu | Pro | Val | Phe | Met | Val | Asn | Thr | Asn | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Trp | Gln | Thr | Ser | Leu | Ser | Leu | Gln | Ser | Phe | Asn | Leu | Glu | Val | Pro | Val |
| | | | 340 | | | | 345 | | | | | | 350 | | |
| Asp | Asp | His | Glu | Arg | Ile | Glu | Lys | Val | Gln | Glu | Tyr | Val | Ala | Gly | Tyr |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Asn | Ala | Asp | Trp | Ile | Glu | Ser | Leu | Thr | Ala | Thr | Ser | Glu | Arg | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Arg | Arg | Leu | Ser | Pro | Pro | Ala | Phe | Arg | Tyr | Gln | Leu | Thr | Glu | Leu | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Arg | Lys | Ala | Gly | Lys | Arg | Val | Val | Leu | Pro | Glu | Gly | Asp | Glu | Pro | Arg |
| | | | | 405 | | | | | 410 | | | | | 415 | |

Thr Val Lys Ala Ala Ala Ile Cys Ala Glu Arg Gly Ile Ala Thr Cys
 420 425 430
 Val Leu Leu Gly Asn Pro Asp Glu Ile Asn Arg Val Ala Ala Ser Gln
 435 440 445
 Gly Val Glu Leu Gly Ala Gly Ile Glu Ile Val Asp Pro Glu Val Val
 450 455 460
 Arg Glu Ser Tyr Val Ala Arg Leu Val Glu Leu Arg Lys Asn Lys Gly
 465 470 475 480
 Met Thr Glu Ala Val Ala Arg Glu Gln Leu Glu Asp Asn Val Val Leu
 485 490 495
 Gly Thr Leu Met Leu Glu Gln Asp Glu Val Asp Gly Leu Val Ser Gly
 500 505 510
 Ala Val His Thr Thr Ala Asn Thr Ile Arg Pro Pro Leu Gln Leu Ile
 515 520 525
 Lys Thr Ala Pro Gly Ser Ser Leu Val Ser Ser Val Phe Phe Met Leu
 530 535 540
 Leu Pro Glu Gln Val Tyr Val Tyr Gly Asp Cys Ala Ile Asn Pro Asp
 545 550 555 560
 Pro Thr Ala Glu Gln Leu Ala Glu Ile Ala Ile Gln Ser Ala Asp Ser
 565 570 575
 Ala Ile Ala Phe Gly Ile Glu Pro Arg Val Ala Met Leu Ser Tyr Ser
 580 585 590
 Thr Gly Thr Ser Gly Ala Gly Ser Asp Val Glu Lys Val Arg Glu Ala
 595 600 605
 Thr Arg Ile Ala Gln Glu Lys Arg Pro Asp Leu Met Ile Asp Gly Pro
 610 615 620
 Leu Gln Tyr Asp Ala Ala Val Met Ala Asp Val Ala Lys Ser Lys Ala
 625 630 635 640
 Pro Asn Ser Pro Val Ala Gly Arg Ala Thr Val Phe Ile Phe Pro Asp
 645 650 655
 Leu Asn Thr Gly Asn Thr Thr Tyr Lys Ala Val Gln Arg Ser Ala Asp
 660 665 670
 Leu Ile Ser Ile Gly Pro Met Leu Gln Gly Met Arg Lys Pro Val Asn
 675 680 685
 Asp Leu Ser Arg Gly Ala Leu Val Asp Asp Ile Val Tyr Thr Ile Ala
 690 695 700
 Leu Thr Ala Ile Gln Ser Ser Gln Gln Gln
 705 710 715

<210> 7447

<211> 212

<212> PRT

<213> Enterobacter cloacae

<400> 7447

Arg Leu Ile Arg Lys Leu His His Asn Cys Lys Arg Ala Glu Arg Ala
 1 5 10 15
 Leu Arg Arg Glu Gly Phe Pro Met Val Glu Gln Asn His Leu Ala Ser
 20 25 30
 Thr Glu Trp Val Asp Ile Val Ser Glu Glu Asn Glu Val Ile Ala Gln
 35 40 45
 Ala Ser Arg Glu Gln Met Arg Ala Glu Arg Leu Arg His Arg Ala Thr
 50 55 60
 Tyr Ile Val Val His Asp Gly Met Gly Lys Ile Leu Val Gln Arg Arg
 65 70 75 80
 Thr Asp Thr Lys Asp Phe Leu Pro Gly Met Leu Asp Ala Thr Ala Gly
 85 90 95
 Gly Val Val Gln Ala Asp Glu Val Leu Leu Asp Ser Ala Arg Arg Glu
 100 105 110
 Ala Glu Glu Glu Leu Gly Ile Ala Gly Val Pro Phe Ala Glu His Gly
 115 120 125

Gln Phe Tyr Phe Glu Asp Glu His Cys Arg Val Trp Gly Gly Leu Phe
 130 135 140
 Ser Cys Val Ser His Gly Pro Phe Ala Leu Gln Glu Glu Val Ser
 145 150 155 160
 Glu Val Ser Trp Met Thr Pro Glu Glu Ile Thr Ala Arg Cys Asp Glu
 165 170 175
 Phe Thr Pro Asp Ser Leu Lys Ala Leu Ala Leu Trp Met Thr Arg Asn
 180 185 190
 Ala Lys Asn Glu Ser Ala Lys Pro Glu Asn Lys Ala Glu Lys Glu Glu
 195 200 205
 Glu Ala Glu
 210

<210> 7448

<211> 102

<212> PRT

<213> Enterobacter cloacae

<400> 7448

Trp Gly Val Leu Tyr Ser Lys Lys Gly Ile Thr Met Lys Ile Met Ala
 1 5 10 15
 Ile Cys Gly Ser Gly Leu Gly Ser Ser Phe Met Val Glu Met Asn Ile
 20 25 30
 Lys Lys Val Leu Lys Lys Leu Glu Ile Glu Ala Glu Val Glu His Ser
 35 40 45
 Asp Leu Ser Ser Ala Thr Pro Gly Ala Ala Asp Leu Phe Val Met Ala
 50 55 60
 Lys Asp Ile Ala Ala Ser Ala Ser Val Pro Glu Ser Gln Leu Val Val
 65 70 75 80
 Ile Asn Asn Ile Ile Asp Ile Asn Glu Leu Glu Ala Gln Leu Arg Ala
 85 90 95
 Trp Phe Glu Arg Gln
 100

<210> 7449

<211> 468

<212> PRT

<213> Enterobacter cloacae

<400> 7449

Gly Glu Val Asp Met Phe Ile Leu Glu Thr Leu Asn Phe Val Val Asp
 1 5 10 15
 Ile Leu Lys Val Pro Ser Val Leu Val Gly Leu Ile Ala Leu Ile Gly
 20 25 30
 Leu Val Ala Gln Lys Lys Ala Phe Ser Asp Val Val Lys Gly Thr Ile
 35 40 45
 Lys Thr Ile Leu Gly Phe Ile Val Leu Gly Gly Gly Ala Thr Val Leu
 50 55 60
 Val Gly Ser Leu Asn Pro Leu Gly Gly Met Phe Glu His Ala Phe Asn
 65 70 75 80
 Ile Gln Gly Ile Ile Pro Asn Asn Glu Ala Ile Val Ser Ile Ala Leu
 85 90 95
 Glu Lys Tyr Gly Ala Ser Thr Ala Leu Ile Met Ala Phe Gly Met Val
 100 105 110
 Ala Asn Ile Ile Val Ala Arg Phe Thr Arg Leu Lys Tyr Ile Phe Leu
 115 120 125
 Thr Gly His His Thr Phe Tyr Met Ala Cys Met Ile Gly Val Ile Leu
 130 135 140
 Thr Val Ala Gly Phe Glu Gly Val Gly Leu Val Phe Thr Gly Ser Leu
 145 150 155 160
 Ile Leu Gly Leu Ile Met Ala Phe Phe Pro Ala Ile Ala Gln Arg Tyr

165 170 175
 Met Lys Arg Ile Thr Gly Asn Asp Glu Ile Ala Phe Gly His Phe Gly
 180 185 190
 Thr Leu Gly Tyr Val Leu Ser Gly Trp Ile Gly Ser Lys Val Gly Lys
 195 200 205
 Gly Ser Arg Ser Thr Glu Glu Met Asn Leu Pro Lys Asn Leu Ser Phe
 210 215 220
 Leu Arg Asp Ser Ser Ile Ser Ile Ser Leu Thr Met Met Ile Ile Tyr
 225 230 235 240
 Leu Ile Met Ala Val Ser Ala Gly Arg Glu Tyr Val Glu Ala Thr Phe
 245 250 255
 Ser Gly Gly Gln Asn Tyr Leu Val Tyr Ala Ile Ile Met Ala Ile Thr
 260 265 270
 Phe Ala Ala Gly Val Phe Ile Ile Leu Gln Gly Val Arg Leu Ile Leu
 275 280 285
 Ala Glu Ile Val Pro Ala Phe Thr Gly Phe Ser Glu Lys Leu Val Pro
 290 295 300
 Asn Ala Arg Pro Ala Leu Asp Cys Pro Val Val Tyr Pro Tyr Ala Pro
 305 310 315 320
 Asn Ala Val Leu Ile Gly Phe Leu Phe Ser Phe Leu Gly Gly Ile Val
 325 330 335
 Gly Leu Phe Ile Cys Gly Gln Phe Ser Trp Val Leu Ile Leu Pro Gly
 340 345 350
 Val Val Pro His Phe Phe Thr Gly Ala Thr Ala Gly Val Phe Gly Asn
 355 360 365
 Ala Thr Gly Gly Arg Arg Gly Ala Met Ile Gly Ala Phe Ala Asn Gly
 370 375 380
 Leu Leu Ile Thr Phe Leu Pro Val Leu Leu Leu Pro Val Leu Gly Ala
 385 390 395 400
 Ile Gly Phe Ala Asn Thr Thr Phe Ser Asp Ala Asp Phe Gly Ala Val
 405 410 415
 Gly Ile Val Leu Gly Asn Leu Ala Arg Phe Leu Ser Pro Phe Ala Ile
 420 425 430
 Thr Gly Leu Val Val Val Leu Phe Ala Leu Leu Val Ala Tyr Asn Val
 435 440 445
 Phe Ala Lys Asn Lys Pro Ala Ser Gly Asn Ala Gln Glu Asn Pro Gly
 450 455 460
 Ala Lys Ser
 465

<210> 7450

<211> 336

<212> PRT

<213> Enterobacter cloacae

<400> 7450

Leu Arg Arg Ala Lys Arg Arg Ser Thr Arg Arg Phe Ala Asn Trp Arg
 1 5 10 15
 Leu His Met Ile Lys Val Ala Pro Thr Gly Gln Lys Asp Ala Val Glu
 20 25 30
 Met Arg Lys Val Tyr Ala Gly Phe Val Ala Lys Gln Ile Glu Ala Gly
 35 40 45
 Ser Glu Ile Ile Ala Leu Glu Ala Asp Leu Met Ser Ser Met Ala Met
 50 55 60
 Asp Gly Val Ala Arg Asp Tyr Pro Gln His Val Ile Asn Cys Gly Ile
 65 70 75 80
 Met Glu Ala Asn Val Ile Gly Thr Ala Ala Gly Leu Ser Leu Thr Gly
 85 90 95
 Arg Lys Pro Phe Val His Thr Phe Thr Ala Phe Ala Ser Arg Arg Cys
 100 105 110
 Phe Asp Gln Leu Phe Met Ser Leu Asp Tyr Gln Arg Asn Asn Val Lys


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<210> 7451
<211> 155
<212> PRT
<213> Enterobacter cloacae
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<210> 7452
<211> 226
<212> PRT
<213> Enterobacter cloacae
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<400> 7452

Cys Leu Thr Glu Val Arg Val Gln Cys Lys Gly Phe Leu Phe Asp Leu
 1 5 10 15
 Asp Gly Thr Leu Val Asp Ser Leu Pro Val Val Glu Arg Ser Trp Cys
 20 25 30
 His Trp Ala Asp Arg His Gly Ile Asp His Gln Asp Val Leu Asn Phe
 35 40 45
 Ile His Gly Lys Gln Ala Ile Thr Ser Leu Arg His Phe Leu Ala Gly
 50 55 60
 Arg Ser Glu Glu Glu Ile Gln Ala Glu Phe Arg Tyr Leu Glu Gln Ile
 65 70 75 80
 Glu Ala Thr Asp Thr Glu Gly Ile Thr Ala Leu Pro Gly Ala Arg Glu
 85 90 95
 Leu Leu Glu His Leu Asn Glu Ala Gln Ile Pro Trp Ala Ile Val Thr
 100 105 110
 Ser Gly Ser Val Pro Val Ala His Ala Arg His Lys Ala Ala Gly Leu
 115 120 125
 Pro Thr Pro Asp Val Phe Ile Thr Ala Glu Arg Val Lys Arg Gly Lys
 130 135 140
 Pro Glu Pro Asp Ala Phe Leu Leu Gly Ala Glu Leu Leu Gly Leu Ala
 145 150 155 160
 Pro Ala Glu Cys Val Val Glu Asp Ala Ala Gly Val Leu Ala
 165 170 175
 Gly Leu Asn Ala Gly Ser His Val Ile Ala Val Asn Val Pro Ala Gly
 180 185 190
 Ser Pro Arg Leu Glu Glu Ala Asp Phe Val Leu Asn Thr Leu Thr Ala
 195 200 205
 Ile Asp Val Ser Lys Ala Ser Asp Gly Val Val Thr Val Ser Leu Lys
 210 215 220
 Met
 225

<210> 7453

<211> 615

<212> PRT

<213> Enterobacter cloacae

<400> 7453

Gln Gly His Val Val Asn Gly Glu Leu Ile Trp Val Leu Ser Leu Leu
 1 5 10 15
 Leu Ile Ala Ile Ile Leu Phe Ala Thr Gly Lys Val Arg Met Asp Ala
 20 25 30
 Val Ala Leu Phe Val Ile Val Ala Phe Val Leu Ser Gly Thr Leu Ser
 35 40 45
 Leu Pro Glu Ala Phe Ser Gly Phe Ser Asp Pro Asn Val Ile Leu Ile
 50 55 60
 Ala Ala Leu Phe Ile Ile Gly Asp Gly Leu Val Arg Thr Gly Val Ala
 65 70 75 80
 Thr Met Met Gly Ser Trp Leu Val Lys Val Ala Gly Ser Ser Glu Thr
 85 90 95
 Lys Met Leu Ile Tyr Leu Met Leu Thr Val Ala Gly Leu Gly Ala Phe
 100 105 110
 Met Ser Ser Thr Gly Val Val Ala Ile Phe Ile Pro Val Val Leu Ser
 115 120 125
 Val Cys Met Arg Met Gln Ile Ser Pro Ser Arg Leu Met Met Pro Leu
 130 135 140
 Ser Phe Ala Gly Leu Ile Ser Gly Met Met Thr Leu Val Ala Thr Pro
 145 150 155 160
 Pro Asn Leu Val Val Asn Ser Glu Leu Ile Arg Glu Gly Leu Glu Gly
 165 170 175
 Phe Ser Phe Phe Ser Val Thr Pro Ile Gly Leu Val Val Leu Val Met
 180 185 190

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Ile | Tyr | Met | Leu | Leu | Thr | Arg | Phe | Ala | Leu | Lys | Gly | Glu | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | Asp | Lys | Ala | Lys | Glu | Gly | Trp | Lys | Arg | Arg | Ser | Phe | Arg | Asp | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Lys | Glu | Tyr | Arg | Leu | Thr | Gly | Arg | Ala | Arg | Arg | Leu | Ala | Ile | Arg |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Pro | Gly | Ser | Pro | Met | Val | Gly | Gln | Arg | Leu | Asp | Asp | Leu | Lys | Leu | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Arg | Tyr | Gly | Ala | Asn | Val | Ile | Gly | Val | Glu | Arg | Trp | Arg | Arg | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Arg | Val | Ile | Val | Asn | Val | Asn | Gly | Val | Ser | Glu | Phe | Arg | Ala | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Val | Leu | Leu | Ile | Asp | Met | Ser | Thr | Ala | Asp | Val | Asp | Leu | Arg | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Phe | Cys | Ser | Glu | Gln | Leu | Leu | Glu | Pro | Met | Val | Leu | Arg | Gly | Glu | Tyr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Phe | Ser | Asp | Gln | Ala | Leu | Asp | Val | Gly | Met | Ala | Glu | Val | Ser | Leu | Ile |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Pro | Glu | Ser | Glu | Leu | Leu | Gly | Lys | Thr | Val | Arg | Glu | Ile | Gly | Phe | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Arg | Tyr | Gly | Leu | Asn | Val | Val | Gly | Leu | Lys | Arg | Asp | Gly | Val | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Glu | Gly | Ala | Val | Val | Asp | Glu | Pro | Ile | Leu | Leu | Gly | Asp | Ile | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Val | Val | Gly | Asn | Trp | Lys | Leu | Ile | Ser | Gln | Leu | Gly | Gln | Lys | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Arg | Asp | Phe | Val | Val | Leu | Asn | Met | Pro | Ile | Glu | Glu | Ser | Asp | Ala | Ser |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Pro | Ala | His | Ser | Gln | Ala | Pro | His | Ala | Ile | Phe | Cys | Leu | Val | Leu | Met |
| | | | 420 | | | | | 425 | | | | 430 | | | |
| Val | Ala | Leu | Met | Leu | Thr | Asp | Glu | Ile | Pro | Asn | Pro | Val | Ala | Ala | Ile |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ile | Ala | Cys | Leu | Leu | Met | Gly | Lys | Phe | Arg | Cys | Ile | Asp | Ala | Glu | Ser |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ala | Tyr | Lys | Ala | Ile | His | Trp | Pro | Ser | Ile | Ile | Leu | Ile | Val | Gly | Met |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Met | Pro | Phe | Ala | Leu | Ala | Leu | Gln | Lys | Thr | Gly | Gly | Val | Asp | Leu | Ile |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Val | Lys | Gly | Leu | Met | Asp | Ala | Gly | Gly | Tyr | Gly | Pro | Tyr | Leu | Met | |
| | | | 500 | | | | 505 | | | | | 510 | | | |
| Met | Val | Cys | Leu | Phe | Val | Met | Cys | Ala | Thr | Ile | Gly | Leu | Phe | Ile | Ser |
| | | 515 | | | | 520 | | | | | 525 | | | | |
| Asn | Thr | Ala | Thr | Ala | Val | Leu | Met | Ala | Pro | Ile | Ala | Leu | Ala | Met | Ala |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Lys | Ser | Met | Gly | Val | Ser | Pro | Tyr | Pro | Phe | Ala | Met | Met | Val | Ala | Met |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ala | Ala | Ser | Ala | Ala | Phe | Met | Thr | Pro | Val | Ser | Ser | Pro | Val | Asn | Thr |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Leu | Val | Leu | Gly | Pro | Gly | Asn | Tyr | Arg | Phe | Ser | Asp | Phe | Val | Lys | Leu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Gly | Val | Pro | Phe | Thr | Val | Leu | Val | Met | Val | Val | Cys | Val | Val | Leu | Ile |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Pro | Val | Leu | Phe | Pro | Phe | | | | | | | | | | |
| | 610 | | | | | 615 | | | | | | | | | |

<210> 7454

<211> 298

<212> PRT

<213> Enterobacter cloacae

<400> 7454


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Lys Asp Met Ile Asn Ala Asn Arg Pro Ile Met Asn Leu Asp Leu Asp
1      5      10
Leu Leu Arg Thr Phe Val Ala Val Ala Asp Leu Asn Thr Phe Ala Ala
20      25      30
Ala Ala Ala Ala Val Cys Arg Thr Gln Ser Ala Val Ser Gln Gln Met
35      40      45
Gln Arg Leu Glu Gln Leu Val Gly Lys Glu Leu Phe Ala Arg His Gly
50      55      60
Arg Asn Lys Leu Leu Thr Glu His Gly Ile Gln Leu Leu Gly Tyr Ala
65      70      75
Arg Lys Ile Leu Arg Phe Asn Asp Glu Ala Cys Met Ser Leu Met Phe
85      90      95
Ser Asn Leu Gln Gly Val Leu Thr Leu Gly Ala Ser Asp Glu Ser Ala
100     105     110
Asp Thr Ile Leu Pro Phe Leu Leu Asn Arg Ile Ser Ser Val Tyr Pro
115     120     125
Lys Leu Ala Leu Asp Val Ser Val Lys Arg Asn Ala Phe Met Val Glu
130     135     140
Met Leu Thr Glu Asn Glu Val Asp Leu Val Val Thr Thr His Arg Pro
145     150     155
Gly Gln Phe Asp Ser Leu Thr Leu Arg Thr Ser Pro Thr His Trp Tyr
165     170     175
Cys Ala Ala Glu Tyr Val Leu Gln Lys Gly Glu Pro Ile Pro Leu Val
180     185     190
Leu Leu Asp Asp Pro Ser Pro Phe Arg Asp Met Val Leu Ala Ala Leu
195     200     205
Asn Glu Ala Ser Ile Pro Trp Arg Leu Ala Tyr Val Ala Ser Thr Leu
210     215     220
Pro Ala Val Arg Ala Ala Val Lys Ala Gly Leu Gly Val Thr Ala Arg
225     230     235
Pro Val Glu Met Met Ser Pro Asp Leu Arg Val Leu Gly Gln Ser Glu
245     250     255
Gly Leu Pro Ser Leu Pro Asp Thr Glu Tyr Leu Leu Cys His Asn Ala
260     265     270
Ala Ser Asn Asn Glu Leu Ala Lys Val Val Phe Glu Ala Met Glu Asn
275     280     285
Tyr His Asn Pro Trp Gln Tyr Ala Ala Val
290     295

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<210> 7455

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7455

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Leu Met Lys Leu Met Phe Ala Ser Asp Ile His Gly Ser Leu Pro Ala
1      5      10
Thr Glu Arg Val Leu Ser Leu Phe Ala Gln Ser Gly Ala Gln Trp Leu
20      25      30
Val Ile Leu Gly Asp Val Leu Asn His Gly Pro Arg Asn Ala Leu Pro
35      40      45
Glu Gly Tyr Ala Pro Ala Gln Val Ala Glu Lys Leu Asn His Phe Ala
50      55      60
Ser Arg Ile Ile Ala Val Arg Gly Asn Cys Asp Ser Glu Val Asp Gln
65      70      75
Met Leu Leu His Phe Pro Ile Thr Ala Pro Trp Gln Gln Val Leu Met
85      90      95
Glu Asn Ser Arg Leu Phe Leu Thr His Gly His Leu Phe Gly Pro Asp
100     105     110
Asn Leu Pro Ser Leu Ala Ala Gly Asp Val Leu Val Tyr Gly His Thr
115     120     125

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His Ile Pro Val Ala Glu Lys Arg Gly Ala Phe Tyr His Phe Asn Pro
 130 135 140
 Gly Ser Val Ser Ile Pro Lys Gly Gly Asn Pro Ala Ser Tyr Gly Met
 145 150 155 160
 Tyr Glu Asp Gly Thr Leu Ser Val Ile Ala Leu Asn Asp Gln Gln Val
 165 170 175
 Ile Ala Gln Ile Ala Ile Asn Pro
 180 185

<210> 7456

<211> 149

<212> PRT

<213> Enterobacter cloacae

<400> 7456

Lys Met Leu Lys Lys Trp Ile Tyr Asp Thr Thr Ile Ile Leu Gln Asp
 1 5 10 15
 Ser Val Glu Ser Trp Pro Gln Ala Leu Glu Leu Cys Ala Lys Pro Leu
 20 25 30
 Leu Asp Leu Gln Val Ile Ala Pro Glu Tyr Val Thr Ala Ile Ile Glu
 35 40 45
 Lys His Thr Leu Gly Pro Tyr Tyr Val Leu Ala Pro Gly Leu Ala
 50 55 60
 Met Pro His Ala Arg Pro Glu Glu Gly Ala Lys Gly Leu Gly Leu Ser
 65 70 75 80
 Leu Leu Lys Leu Lys Gln Gly Val Ser Phe Gly Ala Gly Glu Phe Asp
 85 90 95
 Pro Val Asp Val Ile Val Met Leu Ala Ala Pro Asp Lys His Ser His
 100 105 110
 Ile Glu Met Ile Ser Ala Leu Ala Glu Leu Phe Ser Ser Asp Glu Asp
 115 120 125
 Met Ala Glu Leu His Arg Ala Asn Thr Leu Glu Glu Ile Lys Thr Ile
 130 135 140
 Ile Asp Arg Phe
 145

<210> 7457

<211> 286

<212> PRT

<213> Enterobacter cloacae

<400> 7457

Arg Ala Gly Lys Pro Arg Ser Gln Ile Met Asn Glu Asn Glu Ile Thr
 1 5 10 15
 Glu Leu Ala Arg Gln Ile Arg Leu Glu Thr Leu Lys Ser Leu Thr Gln
 20 25 30
 Leu Gly Phe Gly His Tyr Gly Gly Ser Met Ser Val Val Glu Thr Leu
 35 40 45
 Ala Val Leu Tyr Gly Ala Val Met Lys Ile Asp Pro Ala Asp Pro Asp
 50 55 60
 Trp Pro Glu Arg Asp Tyr Phe Val Leu Ser Lys Gly His Ala Gly Pro
 65 70 75 80
 Ala Leu Tyr Ser Thr Leu Ala Ile Lys Gly Tyr Phe Pro Ile Asp Glu
 85 90 95
 Leu Ser Thr Leu Asn Gln Asn Gly Thr Arg Leu Pro Ser His Pro Asp
 100 105 110
 Arg Leu Lys Thr Arg Gly Val Asp Ala Thr Thr Gly Ser Leu Gly Gln
 115 120 125
 Gly Ile Ser Ile Ala Gly Gly Met Ala Leu Ser His Lys Leu Ala Gly
 130 135 140
 Arg Pro Asn Arg Val Phe Cys Ile Val Gly Asp Gly Glu Leu Asn Glu

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Gly | Gln | Cys | Trp | Glu | Ala | Phe | Gln | Phe | Ile | Ala | His | His | Arg | Leu |
| | | | | 165 | | | | | 170 | | | | | Asn |
| Asn | Leu | Thr | Val | Phe | Val | Asp | Trp | Asn | Lys | Gln | Gln | Leu | Asp | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | Glu |
| Leu | Asp | Glu | Ile | Ile | Ser | Ala | Phe | Asp | Leu | Glu | Gly | Lys | Phe | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | Ala |
| Phe | Gly | Phe | Asp | Val | Val | Thr | Val | Lys | Gly | Asp | Asp | Ile | Pro | Ala |
| | 210 | | | | | 215 | | | | 220 | | | | Leu |
| Leu | Glu | Val | Thr | Ala | Pro | Ile | Pro | Ala | Ala | Asp | Ala | Arg | Pro | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | Val |
| Val | Ile | Leu | Asp | Ser | Ile | Lys | Gly | Gln | Gly | Val | Pro | Tyr | Leu | Glu |
| | | | 245 | | | | | 250 | | | | | 255 | Gln |
| Leu | Ser | Asn | Ser | His | His | Leu | Arg | Leu | Thr | Glu | Glu | Ser | Lys | Ala |
| | | 260 | | | | | | 265 | | | | | 270 | Ala |
| Leu | Asn | Glu | Thr | Ile | Arg | Gln | Leu | Glu | Ala | Ser | His | Asp | | |
| | | 275 | | | | | 280 | | | | | 285 | | |

<210> 7458

<211> 183

<212> PRT

<213> Enterobacter cloacae

<400> 7458

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ser | Val | Thr | Val | Ser | Phe | Phe | Tyr | Ser | Ala | Met | Arg | Tyr | Arg | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Arg | Lys | Met | Glu | Met | Thr | His | Ala | Gln | Arg | Leu | Ile | Leu | Ser | Asn | Gln |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Tyr | Lys | Met | Met | Thr | Met | Leu | Asp | Pro | Asp | Asn | Ala | Ala | Arg | Tyr | Ser |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Arg | Leu | Gln | Thr | Ile | Val | Glu | Arg | Gly | Phe | Gly | Leu | Gln | Met | Arg | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Asp | Arg | Glu | Phe | Gly | Glu | Leu | Lys | Glu | Glu | Thr | Cys | Arg | Ile | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ile | Asp | Ile | Met | Glu | Met | Tyr | His | Ala | Leu | His | Val | Ser | Trp | Thr | Asn |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Lys | Asp | Gln | Gln | Thr | Ile | Asp | Glu | Arg | Arg | Val | Thr | Phe | Leu | Gly |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Phe | Asp | Ala | Ala | Thr | Glu | Ala | Arg | Tyr | Leu | Ser | Tyr | Val | Arg | Phe | Met |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Val | Asn | Thr | Glu | Gly | Arg | Tyr | Thr | His | Phe | Asp | Ala | Gly | Thr | His | Gly |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Phe | Asn | Ala | Gln | Thr | Pro | Met | Trp | Asp | Lys | Tyr | Gln | Arg | Met | Leu | Ser |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Ala | Trp | His | Ala | Cys | Pro | Arg | Gln | Tyr | His | Leu | Ser | Ser | Asn | Glu | Ile |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Gln | Gln | Ile | Ile | Asn | Ala | | | | | | | | | | |
| | | | 180 | | | | | | | | | | | | |

<210> 7459

<211> 72

<212> PRT

<213> Enterobacter cloacae

<400> 7459

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Lys | Gly | Ile | Thr | Gly | Ala | Val | Leu | Arg | Leu | Ile | Val | Leu | Phe |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Thr | Asp | Ser | Val | Asp | Leu | Asp | Ala | Ala | Phe | Leu | Ser | Ala | Asp | Gln | Gly |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Cys | Ser | Gly | Ala | Tyr | Gly | Leu | Leu | Leu | Leu | Asn | Asn | Ala | Ser | Ala | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |

Gly Glu Gln Tyr Arg Tyr Arg Gln Ala Lys Asn His Ile Phe His Arg
 50 55 60
 Gly Tyr Ile Pro Gly His Ser
 65 70

<210> 7460

<211> 461

<212> PRT

<213> Enterobacter cloacae

<400> 7460

Ile Val Leu Lys Gln Val Pro Gly Asn Ala Leu Thr Gly Pro Thr Lys
 1 5 10 15
 Cys Pro Ala Leu Thr Asp Ala Ala Ser Trp Gln Met Gln Tyr Gly Gly
 20 25 30
 Tyr Met Thr Trp Phe Ile Asp Arg Arg Leu Asn Gly Lys Asn Lys Ser
 35 40 45
 Thr Val Asn Arg Gln Arg Phe Leu Arg Arg Tyr Lys Ala Gln Ile Lys
 50 55 60
 Gln Ser Ile Ser Glu Ala Ile Asn Lys Arg Ser Val Thr Asp Val Asp
 65 70 75 80
 Ser Gly Glu Ser Val Ser Ile Pro Asn Asp Asp Ile Ser Glu Pro Met
 85 90 95
 Phe His Gln Gly Arg Gly Gly Leu Arg His Arg Val His Pro Gly Asn
 100 105 110
 Asp His Phe Val Gln Asn Asp Arg Ile Glu Arg Pro Gln Gly Gly Gly
 115 120 125
 Gly Gly Ser Gly Ser Gly Gln Gly Gln Ala Ser Gln Asp Gly Glu Gly
 130 135 140
 Gln Asp Glu Phe Val Phe Gln Ile Ser Lys Asp Glu Tyr Leu Asp Leu
 145 150 155 160
 Leu Phe Glu Asp Leu Ala Leu Pro Asn Leu Arg Lys Asn Gln His Arg
 165 170 175
 Gln Leu Asn Glu Tyr Lys Thr His Arg Ala Gly Tyr Thr Ala Asn Gly
 180 185 190
 Val Pro Ala Asn Ile Ser Val Val Arg Ser Leu Gln Asn Ser Leu Ala
 195 200 205
 Arg Arg Thr Ala Met Thr Ala Gly Lys Arg Arg Glu Leu Arg Glu Leu
 210 215 220
 Glu Thr Ser Leu Lys Val Val Glu Asn Thr Glu Pro Ala Gln Leu Leu
 225 230 235 240
 Glu Glu Glu Arg Leu Arg Lys Glu Ile Ala Glu Leu Arg Ala Lys Ile
 245 250 255
 Asp Arg Val Pro Phe Ile Asp Thr Phe Asp Leu Arg Tyr Lys Asn Tyr
 260 265 270
 Glu Lys Arg Pro Glu Pro Ser Ser Gln Ala Val Met Phe Cys Leu Met
 275 280 285
 Asp Val Ser Gly Ser Met Asp Gln Ala Thr Lys Asp Met Ala Lys Arg
 290 295 300
 Phe Tyr Ile Leu Leu Tyr Leu Phe Leu Ser Arg Thr Tyr Lys Asn Val
 305 310 315 320
 Glu Val Val Tyr Ile Arg His His Thr Gln Ala Lys Glu Val Asp Glu
 325 330 335
 His Glu Phe Phe Tyr Ser Gln Glu Thr Gly Gly Thr Ile Val Ser Ser
 340 345 350
 Ala Leu Lys Leu Met Asp Glu Val Val Lys Glu Arg Tyr Asp Pro Ala
 355 360 365
 Gln Trp Asn Ile Tyr Ala Ala Gln Ala Ser Asp Gly Asp Asn Trp Ala
 370 375 380
 Asp Asp Ser Pro Leu Cys His Glu Ile Leu Ala Lys Lys Ile Leu Pro
 385 390 395 400

Val Val Arg Tyr Tyr Ser Tyr Ile Glu Ile Thr Arg Arg Ala His Gln
 405 410 415
 Thr Leu Trp Arg Glu Tyr Glu His Leu Gln Ala Met Phe Asp Asn Phe
 420 425 430
 Ala Met Gln His Ile Arg Asp Gln Asp Asp Ile Tyr Pro Val Phe Arg
 435 440 445
 Glu Leu Phe Gln Lys Gln Ser Ser Thr Thr Ser Asn
 450 455 460

<210> 7461

<211> 88

<212> PRT

<213> Enterobacter cloacae

<400> 7461

Val Lys Thr Val Arg Ala Arg Ala His Asn Asn Gly Arg Asn Pro Asn
 1 5 10 15
 Trp Thr Ser Tyr Glu Lys Leu Arg Thr Val Ile Glu Lys Lys Met Phe
 20 25 30
 Ser Asn Thr Glu Glu Leu Leu Pro Val Ile Ser Phe Asn Ala Lys Thr
 35 40 45
 Ser Thr Asp Glu Gln Lys Lys His Asp Asp Phe Val Asp Arg Met Met
 50 55 60
 Glu Lys Gly Tyr Thr Arg Lys Gln Val Arg Leu Leu Cys Glu Trp Tyr
 65 70 75 80
 Leu Arg Val Arg Lys Ser Ser
 85

<210> 7462

<211> 1121

<212> PRT

<213> Enterobacter cloacae

<400> 7462

Arg Ser Val Cys Gly Ser Asn Glu Ser Val Asn Val Met Ala Asp Val
 1 5 10 15
 Ala Ser Leu Ala Val Gly Leu His Leu Asn Ala Ala Asn Phe Lys Ser
 20 25 30
 Gln Leu Met Gly Ala Tyr Gly Asp Ala Glu Asn Ser Ser Lys Arg Phe
 35 40 45
 Asn Arg Asn Ala Gln Glu Asp Ala Lys Arg Thr Asp Glu Ala Tyr Ser
 50 55 60
 Arg Met Gly Lys Thr Ile Ala Gly Val Ala Gly Arg Leu Ala Gly Phe
 65 70 75 80
 Ala Gly Ala Gly Leu Ser Leu Gly Ala Ile Ile Thr Thr Thr Arg Glu
 85 90 95
 Tyr Gly Gln Ala Leu Ser Asp Leu Ser Ala Ile Thr Gly Ala Thr Gly
 100 105 110
 Ala Gln Leu Lys Ser Leu Asp Glu Ala Ala Gln Glu Met Gly Arg Ser
 115 120 125
 Thr Glu Tyr Ser Ala Ser Gln Ala Val Glu Ala Leu Lys Leu Met Ala
 130 135 140
 Ser Ala Lys Pro Glu Leu Leu Gln Thr Ala Asp Gly Leu Thr Glu Ala
 145 150 155 160
 Thr Lys Ser Ala Leu Thr Leu Ala Gln Ala Ala Gly Ser Thr Leu Pro
 165 170 175
 Asp Ala Thr Arg Thr Leu Ala Leu Ser Leu Asn Gln Phe Gly Ala Gly
 180 185 190
 Ala Gln Glu Ala Asp Arg Tyr Ile Asn Val Leu Ala Ala Gly Ala Lys
 195 200 205
 Phe Gly Ala Ser Glu Ile Ala Asp Thr Ala Ala Ala Ile Lys Asn Gly

| | | |
|-------------------------|---------------------|-------------------------|
| 210 | 215 | 220 |
| Gly Val Ala Ala Ala Gln | Ala Gly Val Gly Phe | Glu Thr Leu Asn Ala |
| 225 | 230 | 235 |
| Ala Ile Gln Val Leu | Ala Glu Arg Glu Ile | Lys Gly Gly Glu Ala Gly |
| 245 | 250 | 255 |
| Thr Ala Leu Arg Asn Val | Ile Leu Ala Leu Glu | Lys Gly Thr Asp Lys |
| 260 | 265 | 270 |
| Thr Leu Lys Pro Ser Val | Val Gly Leu Ser Gly | Ala Leu Asp Asn Leu |
| 275 | 280 | 285 |
| Ser Lys Lys Asn Leu Ser | Thr Ala Gln Ala Val | Lys Leu Phe Gly Val |
| 290 | 295 | 300 |
| Glu Asn Ile Asn Ala Ala | Ser Val Leu Val Asp | Asn Arg Ser Lys Leu |
| 305 | 310 | 315 |
| Asn Ala Leu Thr Leu | Ala Leu Thr Gly Thr | Gln Thr Ala His Glu Gln |
| 325 | 330 | 335 |
| Ala Ala Ile Arg Val Asn | Asn Leu Asn Gly Asp | Ile Met Gly Leu Thr |
| 340 | 345 | 350 |
| Ser Ala Phe Glu Gly Met | Ile Ile Lys Ile Gly | Gln Ser Ser Thr Gly |
| 355 | 360 | 365 |
| Pro Leu Arg Ser Gly Ile | Gln Ser Val Thr Asp | Gly Ile Asn Leu Leu |
| 370 | 375 | 380 |
| Thr Asp Asn Phe Asn Ala | Val Ala Ser Val Ala | Leu Tyr Thr Leu Ile |
| 385 | 390 | 395 |
| Pro Val Leu Ser Thr Lys | Leu Thr Ala Gly Leu | Arg Glu Asn Ile Ser |
| 405 | 410 | 415 |
| Ala Trp Gln Gln Asn Gln | Ala Ala Val Lys Ala | Ala Ala Ala Gln |
| 420 | 425 | 430 |
| Ala Asp Gly Ala Arg Lys | Thr Leu Glu Ala Thr | Ser Ala Thr Leu Lys |
| 435 | 440 | 445 |
| Arg Asn Asp Ala Glu Phe | Gly Tyr Tyr Arg Gln | Leu Glu Lys Thr Ala |
| 450 | 455 | 460 |
| Arg Gln His Gly Leu Asn | Val Asn Tyr Gln Gly | Glu Phe Asn Arg Leu |
| 465 | 470 | 475 |
| Ile Arg Glu Glu Thr Glu | Gln Thr Asn Leu Ala | Thr Arg Ala Lys Met |
| 485 | 490 | 495 |
| Gln Leu Ala Ala Ala Asn | Arg Gln Val Ser Leu | Thr Ala Arg Ala Ala |
| 500 | 505 | 510 |
| Ser Val Ala Val Gly Leu | Ala Arg Gly Ala Leu | Ala Leu Val Gly Gly |
| 515 | 520 | 525 |
| Pro Phe Gly Ala Ala Met | Leu Ala Gly Ser Ala | Leu Leu Tyr Phe His |
| 530 | 535 | 540 |
| Gln Gln Ala Lys Asp Ala | Arg Gln Ser Ala Ile | Asn Leu Lys Asp Ala |
| 545 | 550 | 555 |
| Val Ile Glu Thr Thr Ala | Ala Leu Met Gln Met | Ser Asp Lys Gln Leu |
| 565 | 570 | 575 |
| Ala Val Lys Gln Ile Asp | Leu Gln Asp Gln Tyr | Glu Asn Gln Val Thr |
| 580 | 585 | 590 |
| Gln Arg Asn Gln Leu Ile | Lys Glu Ile Gln Asp | Ala Asp Ser Arg Leu |
| 595 | 600 | 605 |
| Asp Ser Leu Gly Gly Phe | Asp Pro Phe Arg Gln | Lys Lys Gly Val Glu |
| 610 | 615 | 620 |
| Asp Ser Lys Lys Arg Ala | Glu Ala Asp Leu Glu | Ala Val Asn Lys Gly |
| 625 | 630 | 635 |
| Leu Glu Thr Thr Gln Ser | Asn Leu Glu Asn Val | Ser Lys Ala Arg Phe |
| 645 | 650 | 655 |
| Leu Val Gln Thr Gly Ile | Ala Asp Gln Ala Lys | Ser Leu Ala Asn Asp |
| 660 | 665 | 670 |
| Ile Lys Asn Ile Thr Ala | Gln Thr Ala Lys Ala | Gly Glu Gly Val Thr |
| 675 | 680 | 685 |
| Thr Pro Trp Thr Gly Glu | Asp Thr Gln Lys Ala | Arg Lys Glu Thr Val |
| 690 | 695 | 700 |


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Asn Gln Tyr Leu Gln Leu Arg Arg Glu Ile Glu Glu Ala His Ala Thr
705          710          715          720
Ser Leu Gly Lys Ile Asp Leu Gln Glu Lys Ala Ser Gln Glu Lys Leu
          725          730          735
Ile Ala Ala Ala Arg Lys Asn Gly Ala Ser Gln Gln Asp Leu Gln Arg
          740          745          750
Ala Leu Leu Met Asn Ala Glu Asn Tyr Gln Lys Gln Arg Asn Glu Leu
          755          760          765
Ala Glu Gln Tyr Ser Pro Ala Arg Ser Ala Ile Asn Lys Glu Lys Glu
          770          775          780
Ala Ser Gln Glu Leu Lys Ser Leu Leu Asp Ala Arg Leu Leu Thr Glu
785          790          795          800
Lys Glu Tyr Met Ala Ala Arg Val Thr Leu Ser Gln Glu Thr Ser Arg
          805          810          815
Gln Ile Leu Gln Ala Gln Ala Asn Ala Leu Ser Ala Pro Arg Leu Glu
          820          825          830
Leu Ala Gly Asp Val Asp Pro Leu Ala Gln Gln Arg Asn Gln Leu Ala
          835          840          845
Gln Gln Gln Ser Leu Val Glu Thr Tyr Tyr Arg Asn Gly Ala Leu Ser
          850          855          860
Lys Gln Gln Tyr Glu Met Leu Met Gln Lys Ser Ser Lys Asp Ser Ala
865          870          875          880
Asp Ala Gln Tyr Gln Thr Ala Leu Glu Leu Tyr Arg Ser Gln Ser Glu
          885          890          895
Phe Asn Asn Leu Ala Ile Gly Leu Val Glu Ala Thr Arg Glu Arg Thr
          900          905          910
Thr Asn Val Leu Thr Gly Leu Leu Thr Lys Thr Gln Thr Phe Lys Glu
          915          920          925
Gly Val Ile Asn Leu Phe Ser Thr Leu Thr Gln Ser Ile Ile Gln Asn
          930          935          940
Leu Val Asp Met Ala Ala Gln Ala Leu Val Thr Asn Thr Ile Leu Ser
945          950          955          960
Ser Ile Met Gly Val Gly Ser Ser Val Leu Gly Gly Val Gly Gly Ser
          965          970          975
Thr Ala Gly Ser Ser Gly Thr Ala Ile Ala Asp Tyr Gly Ser Asn Phe
          980          985          990
Gln Phe Asn Ala Lys Gly Gly Val Tyr Ser Ser Ser Asp Leu Ser Ala
          995          1000          1005
Tyr Ser Gly Gln Val Val Asp Asn Pro Thr Phe Phe Ala Phe Ala Lys
1010          1015          1020
Gly Ala Gly Val Met Gly Glu Ala Gly Pro Glu Ala Ile Met Pro Leu
1025          1030          1035          1040
Thr Arg Ala Ala Asp Gly Ser Leu Gly Val Arg Ala Val Ser Gly Gly
          1045          1050          1055
Ala Ser Glu Gly Ala Ala Pro Gln Val Phe Ile Thr Ile Asn Gly Asp
          1060          1065          1070
Gly Ser Thr Ala Ser Gln Ser Ser Gly Gly Leu Glu Lys Phe Gly Lys
          1075          1080          1085
Ser Val Gly Asn Phe Val Arg Asp Glu Tyr Arg Lys Leu Ile Gln Ala
1090          1095          1100
Asp Leu Arg Pro Gly Gly Ala Ile Trp Asn Ser Thr Asn Gly Arg Arg
1105          1110          1115          1120

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<210> 7463

<211> 1340

<212> PRT

<213> Enterobacter cloacae

<400> 7463

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Cys | Ile | Val | Cys | Val | Trp | Arg | Gly | Asp | Lys | Tyr | Arg | Arg | Thr | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Pro | Gly | Ser | Ala | Pro | Leu | Arg | Pro | Pro | Ala | Asn | Arg | Arg | Gly | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Phe | Arg | Arg | Asp | Leu | Cys | Arg | Arg | Ser | Ala | Val | Asp | Asn | Lys | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Tyr | Lys | Pro | Pro | Ser | Gly | Gly | Phe | Phe | Tyr | Gly | Arg | Asp | Met | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Lys | Ile | Thr | Gly | Arg | Lys | Gly | Gly | Ser | Ser | Ser | Ser | Arg | Thr | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Glu | Gln | Pro | Asp | Asp | Leu | Gln | Ser | Val | Ala | Lys | Ala | Lys | Ile | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Ala | Leu | Gly | Glu | Gly | Glu | Phe | Ala | Gly | Gln | Leu | Thr | Gly | Lys | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Tyr | Leu | Asp | Gly | Thr | Ala | Leu | Glu | Asn | Ala | Asp | Gly | Ser | Gln | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Ser | Gly | Val | Thr | Trp | Glu | Phe | Arg | Ser | Gly | Thr | Gln | Ala | Gln | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Ile | Gln | Gly | Ile | Pro | Gly | Thr | Glu | Asn | Glu | Ile | Ser | Val | Gly | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Val | Thr | Ser | Ala | Thr | Ala | Trp | Thr | Arg | Thr | Phe | Thr | Asn | Thr | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ser | Ala | Val | Arg | Leu | Arg | Leu | Lys | Trp | Pro | Ser | Leu | Phe | Lys | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Asp | Asp | Gly | Asp | Leu | Val | Gly | Tyr | Ser | Val | Asn | Tyr | Ala | Ile | Asp |
| | | 195 | | | | | 200 | | | | 205 | | | | |
| Leu | Gln | Thr | Asp | Gly | Gly | Thr | Trp | Gln | Thr | Val | Leu | Asn | Thr | Ser | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Gly | Lys | Thr | Thr | Ser | Gly | Tyr | Glu | Arg | Ser | His | Arg | Ile | Asp | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Gln | Ala | Gly | Ser | Thr | Trp | Thr | Ile | Arg | Leu | Arg | Lys | Ile | Thr | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Ala | Asn | Ser | Ala | Lys | Ile | Gly | Asp | Thr | Met | Thr | Leu | Gln | Ser | Phe |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Thr | Glu | Val | Ile | Asp | Ala | Lys | Leu | Arg | Tyr | Pro | Asn | Thr | Ala | Leu | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Tyr | Ile | Glu | Phe | Asp | Ser | Ser | Gln | Phe | Asn | Gly | Ser | Ile | Pro | Gln | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Cys | Glu | Pro | Arg | Gly | Arg | Val | Ile | Arg | Val | Pro | Asp | Thr | Tyr | Asp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Pro | Glu | Thr | Arg | Ser | Tyr | Ser | Gly | Thr | Trp | Thr | Gly | Ala | Phe | Lys | Trp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Trp | Thr | Asp | Asn | Pro | Ala | Trp | Ile | Phe | Tyr | Asp | Leu | Val | Val | Ser |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Arg | Phe | Gly | Leu | Gly | His | Arg | Leu | Thr | Ala | Ala | Asn | Ile | Asp | Lys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Trp | Thr | Leu | Tyr | Gln | Val | Ala | Gln | Tyr | Cys | Asp | Gln | Met | Val | Pro | Asp |
| | 370 | | | | | 375 | | | | | | 380 | | | |
| Gly | Lys | Gly | Gly | Asp | Gly | Thr | Glu | Pro | Arg | Tyr | Thr | Cys | Asn | Val | Tyr |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ile | Gln | Asp | Arg | Asn | Asp | Ala | Tyr | Thr | Val | Leu | Arg | Asp | Phe | Ala | Ala |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ile | Phe | Arg | Gly | Met | Thr | Tyr | Trp | Gly | Gly | Asp | Gln | Ile | Val | Ala | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ala | Asp | Met | Pro | Arg | Asp | Val | Asp | Tyr | Ser | Tyr | Thr | Arg | Ala | Asn | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Val | Gly | Gly | Arg | Phe | Thr | Tyr | Ser | Ser | Ser | Thr | Thr | Lys | Thr | Arg | Tyr |
| | 450 | | | | | 455 | | | | | | 460 | | | |
| Thr | Thr | Ala | Leu | Val | Ser | Trp | Ser | Asp | Pro | Gly | Asn | Ala | Tyr | Ala | Asp |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Met | Glu | Pro | Val | Phe | Glu | Gln | Ala | Leu | Val | Ala | Arg | Tyr | Gly | Phe |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Asn | Gln | Leu | Glu | Met | Thr | Ala | Ile | Gly | Cys | Thr | Arg | Gln | Ser | Glu | Ala | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Asn | Arg | Lys | Gly | Arg | Trp | Gly | Ile | Leu | Thr | Asn | Asn | Lys | Asp | Arg | Val | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Val | Ser | Phe | Asp | Val | Gly | Leu | Asp | Gly | Asn | Ile | Pro | Gln | Pro | Gly | Tyr | | |
| | | 530 | | | | 535 | | | | | 540 | | | | | | |
| Ile | Ile | Ala | Val | Ala | Asp | Glu | Leu | Leu | Ser | Gly | Lys | Val | Met | Gly | Gly | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Arg | Ile | Ser | Ala | Val | Asn | Gly | Arg | Val | Ile | Lys | Leu | Asp | Arg | Val | Ala | | |
| | | | | 565 | | | | | 570 | | | | | 575 | | | |
| Asp | Ala | Ala | Ala | Gly | Asp | Arg | Leu | Ile | Leu | Asn | Leu | Pro | Ser | Gly | Ala | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |
| Ser | Gln | Ser | Arg | Thr | Ile | Gln | Ala | Val | Asn | Gly | Glu | Ser | Val | Thr | Val | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Thr | Thr | Ala | Tyr | Ser | Glu | Thr | Pro | Gln | Ala | Glu | Ala | Val | Trp | Val | Val | | |
| | | 610 | | | | 615 | | | | | 620 | | | | | | |
| Glu | Ser | Asn | Glu | Leu | Tyr | Ala | Gln | Gln | Tyr | Arg | Val | Val | Ser | Val | Ala | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | |
| Asp | Asn | Asp | Asp | Gly | Thr | Phe | Thr | Ile | Thr | Gly | Ala | Trp | His | Asp | Pro | | |
| | | | | 645 | | | | | 650 | | | | | 655 | | | |
| Asp | Lys | Tyr | Ala | Arg | Ile | Asp | Thr | Gly | Ala | Ile | Ile | Asp | Gln | Arg | Pro | | |
| | | | 660 | | | | | 665 | | | | | 670 | | | | |
| Val | Ser | Val | Ile | Pro | Pro | Gly | Asn | Gln | Thr | Pro | Pro | Ala | Asn | Ile | Val | | |
| | | 675 | | | | | 680 | | | | | 685 | | | | | |
| Ile | Ser | Ser | Phe | Ser | Val | Val | Gln | Gln | Asn | Ile | Ser | Val | Glu | Thr | Met | | |
| | | 690 | | | | 695 | | | | | 700 | | | | | | |
| Arg | Val | Ser | Trp | Asp | Gln | Ala | Gln | Asn | Ala | Val | Ala | Tyr | Glu | Ala | Gln | | |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 | | |
| Trp | Arg | Arg | Asn | Asp | Gly | Asn | Trp | Val | Asn | Val | Pro | Arg | Ser | Ser | Thr | | |
| | | | 725 | | | | | | 730 | | | | | 735 | | | |
| Thr | Ser | Tyr | Asp | Val | Pro | Gly | Ile | Tyr | Ala | Gly | Arg | Tyr | Leu | Val | Arg | | |
| | | | 740 | | | | | 745 | | | | | 750 | | | | |
| Val | Arg | Ala | Ile | Asn | Ala | Ala | Glu | Ile | Ser | Ser | Gly | Trp | Gly | Tyr | Ser | | |
| | | 755 | | | | | 760 | | | | | 765 | | | | | |
| Glu | Glu | Lys | Thr | Leu | Thr | Gly | Lys | Val | Gly | Asn | Pro | Pro | Lys | Pro | Val | | |
| | | 770 | | | | 775 | | | | | 780 | | | | | | |
| Gly | Phe | Ile | Ala | Ser | Asp | Asn | Val | Val | Phe | Gly | Ile | Glu | Leu | Ser | Trp | | |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 | | |
| Gly | Phe | Pro | Ala | Asn | Thr | Asp | Asp | Thr | Leu | Lys | Thr | Glu | Ile | Gln | Tyr | | |
| | | | 805 | | | | | | 810 | | | | | 815 | | | |
| Ser | Leu | Thr | Gly | Arg | Glu | Asp | Asp | Ala | Met | Leu | Leu | Ala | Asp | Val | Pro | | |
| | | | 820 | | | | | 825 | | | | | 830 | | | | |
| Tyr | Pro | Gln | Arg | Lys | Tyr | Gln | Gln | Met | Gly | Leu | Lys | Ala | Gly | Gln | Thr | | |
| | | 835 | | | | | | | | | | | | | | | |

Thr Asp Val Thr Arg Leu Glu Ala Lys Thr Ala Gln Asn Glu Ala Gly
 980 985 990
 Val Thr Glu Val Arg Gln Ala Leu Ser Asp Glu Ala Gln Ala Arg Ala
 995 1000 1005
 Thr Ala Val Asp Gln Leu Thr Ala Ser Thr Gln Val Ile Ser Asp Lys
 1010 1015 1020
 Ala Asp Ser Ala Ser Ser Lys Ala Asp Ala Ala Ser Gly Lys Ala Asp
 1025 1030 1035 1040
 Ala Ala Glu Gln Ala Ser Ser Gln Asn Thr Ala Asp Ile Thr Thr Leu
 1045 1050 1055
 Arg Gln Val Val Thr Asp Thr Thr Ser Ser Met Ala Ser Arg Leu Glu
 1060 1065 1070
 Glu Leu Gly Ala Arg Thr Asp Thr Ala Ser Gly Gly Ile Gln Asn Asn
 1075 1080 1085
 Ala Ile Ala Leu Ile Thr Ser Thr Leu Ala Gln Val Asp Gln Arg Val
 1090 1095 1100
 Arg Leu Ser Ala Gln Tyr Gly Asp Ser Lys Ala Ser Ile Asp Arg Ile
 1105 1110 1115 1120
 Asp Asn Val Met Ala Ser Asp Arg Glu Ala Thr Ala Arg Ser Leu Leu
 1125 1130 1135
 Ser Leu Gln Thr Asp Val Asn Gly Asn Lys Ala Ser Ile Asn Ser Leu
 1140 1145 1150
 Asn Gln Thr Phe Ser Asp Tyr Gln Gln Ala Thr Ala Thr Gln Ile Asn
 1155 1160 1165
 Gly Ile Thr Ala Thr Ile Asn Gly His Thr Ser Ala Ile Thr Thr Asn
 1170 1175 1180
 Ala Gln Ala Ile Ala Asn Val Asn Gly Asp Leu Lys Ala Met Tyr Ser
 1185 1190 1195 1200
 Ile Lys Val Gly Leu Ala Ser Asn Gly Gln Tyr Tyr Ala Ala Gly Met
 1205 1210 1215
 Gly Ile Gly Val Glu Asn Thr Pro Ser Gly Met Gln Ser Gln Val Ile
 1220 1225 1230
 Phe Val Ala Asp Arg Phe Ala Val Thr His Gln Ala Gly Ala Thr Val
 1235 1240 1245
 Thr Leu Pro Phe Val Ile Gln Asn Gly Gln Val Phe Ile Arg Asp Ala
 1250 1255 1260
 Leu Ile Gly Asp Gly Thr Ile Asn Asn Asn Lys Ile Gly Lys Tyr Ile
 1265 1270 1275 1280
 Gln Ser Asn Asn Phe Val Ala Gly Ser Val Gly Trp Arg Leu Asp Lys
 1285 1290 1295
 Gly Gly Thr Phe Glu Asn Tyr Gly Ser Thr Ala Gly Glu Gly Ala Met
 1300 1305 1310
 Lys Gln Thr Asn Gln Thr Ile Ser Val Lys Asp Ala Asn Asn Val Leu
 1315 1320 1325
 Arg Val Gln Ile Gly Arg Ile Thr Gly Thr Trp
 1330 1335 1340

<210> 7464

<211> 254

<212> PRT

<213> Enterobacter cloacae

<400> 7464

Thr Met Ser Leu Asn Ala Asp Tyr Gln Lys Leu Glu Ser Gly Asn Asp
 1 5 10 15
 Val Arg Leu Ile Glu Val Asp Gly Ser Ser Phe Gly Leu Thr Glu Val
 20 25 30
 Leu Arg Phe His Asn Tyr Asn Ile Pro His Thr Glu Glu Glu Ile Val
 35 40 45
 Ala Ala Gly Gly Asp Glu Ala Lys Leu Pro Ala Lys Pro Ile Trp Trp
 50 55 60

Gln Gly Asn Glu Tyr Ser Ala Trp Pro Tyr Gln Leu Glu Gly Leu Glu
 65 70 75 80
 Lys Ser Thr Ser Gly Ser Asn Ala Thr Pro Ser Leu Thr Val Ala Asn
 85 90 95
 Ile Glu Ser Ser Ile Ser Ala Leu Cys Leu Ala Tyr Asp Asp Leu Leu
 100 105 110
 Gln Ala Lys Val Thr Ile His Asp Thr Lys Ala Lys Tyr Leu Asp Ala
 115 120 125
 Lys Asn Phe Ala Gly Gly Asn Pro Thr Ala Asp Pro Thr Gln Glu Lys
 130 135 140
 Leu Gln Val Trp Tyr Ile Asp Gly Lys Thr Thr Glu Leu Ala Gly Glu
 145 150 155 160
 Thr Ile Glu Phe Val Leu Ser Ser Pro Met Asp Leu Gln Gly Gln Met
 165 170 175
 Ile Pro Thr Arg Gln Leu His Ser Leu Cys Thr Trp Cys Ile Arg Asn
 180 185 190
 Lys Tyr Arg Thr Gly Asp Gly Cys Asp Tyr Ala Gly Thr Arg Tyr Phe
 195 200 205
 Asp Lys Asn Asn Asn Pro Val Ser Asp Pro Ser Leu Asp Glu Cys Asn
 210 215 220
 Gly Thr Leu Thr Ala Cys Lys Leu Arg Phe Gly Glu Ser Asn Glu Leu
 225 230 235 240
 Ser Phe Gly Gly Phe Pro Gly Thr Ser Leu Ile Arg Ser
 245 250

<210> 7465

<211> 203

<212> PRT

<213> Enterobacter cloacae

<400> 7465

Lys Val Glu Gly Thr Met Gln Glu Val Met Thr Arg Ile Glu Leu Gly
 1 5 10 15
 Gly Glu Pro Gly Lys Ile Phe Gly Lys Ile His His Arg Leu Ile Asn
 20 25 30
 Lys Val Ser Glu Ala Gly Thr Ala Leu Ala Lys Thr Ile Pro Gly Phe
 35 40 45
 Glu Ser Tyr Met Ile Ser Ser Lys Ser Arg Gly Leu Thr Phe Ala Ile
 50 55 60
 Phe Lys Gly Lys Lys Asn Ile Gly Val Asp Asp Leu Gly Phe Pro Val
 65 70 75 80
 Thr Gly Glu Val Ile Arg Ile Val Pro Val Ile Ile Gly Ser Lys Lys
 85 90 95
 Asp Gly Leu Leu Gln Thr Ile Leu Gly Ala Val Ile Ile Ala Ala Ser
 100 105 110
 Ala Ile Gly Ser Tyr Phe Ala Pro Gly Asn Pro Ile Ser Ala Phe Gly
 115 120 125
 Tyr Lys Phe Gly Ala Ala Met Met Leu Gly Gly Val Val Gln Met Leu
 130 135 140
 Ser Pro Gln Pro Thr Gly Leu Ala Ser Lys Gln Ser Ala Asp Asn Arg
 145 150 155 160
 Ala Ser Tyr Ala Phe Gly Gly Val Thr Asn Thr Ala Ala Gln Gly Tyr
 165 170 175
 Pro Val Pro Leu Leu Tyr Gly Arg Arg Arg Ile Gly Gly Ala Ile Ile
 180 185 190
 Ser Ala Gly Ile Tyr Val Glu Asp Gln Gln
 195 200

<210> 7466

<211> 224

<212> PRT

<213> Enterobacter cloacae

<400> 7466

```

Met Ala Glu Tyr Gly Val Leu Leu Thr Thr Thr Ser Gly Glu Val Trp
1      5      10      15
Val Thr Ala Asn Ser Ser Pro Ile Ala Leu Gln Ala Arg Lys Thr Ala
      20      25      30
Ala Leu Gln Gly Thr Ser Gly Phe Asn Thr Lys Val Thr His Thr Phe
      35      40      45
Pro Ala Gly Gln Pro Val Val Ala Phe Val His Cys Thr Val Glu Val
      50      55      60
Glu Ile Thr Gln Thr Ile Ser Gly Asn Thr Ile Thr Ile Asp Phe Leu
65      70      75      80
Arg Pro Asn Ala Thr Gly Thr Ala Tyr Val Tyr Phe Phe Ser Ile Phe
      85      90      95
Pro Gln Thr Lys Pro Asp Tyr Gly Leu Ala Val Trp Asp Ala Ser Gly
      100     105     110
Thr Leu Ile Leu Thr Asn Glu Thr Arg Thr Leu Ser Asp Val Val Thr
      115     120     125
Leu Gly Thr Ala Gly Val Asp Ala Ser Ser Gly Tyr Asn Ile Asn Thr
      130     135     140
Thr Leu Val Gly Lys Trp Ala Cys Met Pro Ala Met Leu Gly Leu Ile
145     150     155     160
Thr Gly Val Ile Ser Ala Gly Gly Gln Pro Gln Pro Tyr Ser Ala Ile
      165     170     175
Tyr Lys Ser Met Ala Lys Leu Glu Gly Ser Asn Thr Arg Ile Phe Ala
      180     185     190
Arg Pro Gln Thr Thr Pro Gly Gly Asn Leu Gln Asn Val Thr Tyr Ser
      195     200     205
Asn Leu Arg Asn Val Ile Met Ala Ile Asn Cys Ala Asn Tyr Asp
      210     215     220

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<210> 7467

<211> 120

<212> PRT

<213> Enterobacter cloacae

<400> 7467

```

Pro Val Leu Asp Ser Glu Lys His Gly Glu Cys Pro Leu Met Gly Phe
1      5      10      15
Ala Ser Pro Ala Thr Asp Tyr Val Glu Arg Gln Leu Ser Pro Ser Val
      20      25      30
Leu Cys Asn Ile Gly Ala Glu Ser Arg Val Leu Glu Thr Asp Val Gly
      35      40      45
Phe Ala Val Ile Glu Pro Ala Thr Lys Lys Arg Pro Gly Asp Val Leu
      50      55      60
Leu Ile Leu Cys Asp Gly His Thr Gln Phe Ala Lys Leu Met Gly Lys
65      70      75      80
Ser Leu Ile Thr Asp Asp Gly Glu Ala Ile Glu Gly Thr Ala Leu Glu
      85      90      95
Glu Val Glu Val Leu Gly Arg Val Thr Phe Phe Ile Asn Arg Ala Leu
      100     105     110
Asp Asp Asp Cys Pro Ala Ile
      115     120

```

<210> 7468

<211> 374

<212> PRT

<213> Enterobacter cloacae

<400> 7468

Lys Glu Gly Gln Lys Ser Gly Arg Leu Ser Glu Glu Thr Lys Ala Ala
 1 5 10 15
 Val Asp Lys Met Ala Ser Glu Phe Asn Ala Leu Arg Glu Ala Glu Lys
 20 25 30
 Thr Leu Lys Ala Ala Met Gly Glu Leu Glu Gln His Val Ala Gln Met
 35 40 45
 Pro Leu Ala Asn Ala Lys Gln Val Ile Glu Ser Val Gly His Gln Val
 50 55 60
 Ile Ser Ala Glu Ala Leu Lys Thr Phe Ala Ser Ser Val Glu Gly Gly
 65 70 75 80
 Lys Arg Ile Ser Ile Pro Val Lys Ala Ala Leu Thr Ser Val Asp Val
 85 90 95
 Pro Asp Gly Val Val Glu Pro Gln Arg Leu Pro Gly Ile Asp Thr Ala
 100 105 110
 Pro Lys Gln Arg Leu Phe Ile Arg Asp Leu Ile Ala Pro Gly Arg Thr
 115 120 125
 Ser Ser Ser Ala Ile Phe Trp Val Gln Gln Thr Gly Phe Thr Asn Asn
 130 135 140
 Ala Lys Val Val Pro Glu Asn Thr Gln Lys Pro Tyr Ser Glu Ile Glu
 145 150 155 160
 Phe Thr Pro Lys Ile Thr Gly Val Ser Thr Ile Ala His Leu Phe Lys
 165 170 175
 Ala Ser Lys Gln Ile Leu Asp Asp Phe Ala Gln Leu Gln Ser Thr Val
 180 185 190
 Asp Ala Glu Met Arg Tyr Gly Leu Lys Tyr Ala Glu Glu Gln Glu Ile
 195 200 205
 Leu Phe Gly Asp Gly Thr Gly Val His Leu His Gly Ile Val Pro Gln
 210 215 220
 Ala Ser Ala Phe Asn Pro Ala Phe Thr Val Glu Gln Gln Ser Gly Ile
 225 230 235 240
 Asp Asp Leu Arg Leu Ala Met Leu Gln Ala Gln Leu Ala Arg Phe Pro
 245 250 255
 Ala Ser Gly His Val Leu His Phe Ile Asp Trp Ala Arg Ile Glu Leu
 260 265 270
 Thr Lys Asp Ser Leu Gly Arg Tyr Ile Leu Ala Asn Pro Ala Ala Leu
 275 280 285
 Thr Gly Pro Thr Leu Trp Gly Leu Pro Val Val Ala Thr Glu Ala Ala
 290 295 300
 Ala Phe Gln Gly Lys Phe Leu Thr Gly Ala Phe Asn Ala Gly Ala Gln
 305 310 315 320
 Ile Phe Asp Arg Glu Asp Ala Asn Val Val Ile Ser Thr Glu Asn Ala
 325 330 335
 Asp Asp Phe Glu Lys Asn Met Ile Thr Ile Arg Cys Glu Glu Arg Leu
 340 345 350
 Ala Leu Ala Val Lys Arg Pro Glu Ala Phe Val Tyr Gly Ser Phe Ser
 355 360 365
 Thr Gly Ala Gly Ser
 370

<210> 7469

<211> 129

<212> PRT

<213> Enterobacter cloacae

<400> 7469

Ser Ser Ser Arg Arg Gly Asn Leu Glu Gln Tyr Lys Arg Glu Ala Val
 1 5 10 15
 Met Ala Leu Glu Thr Phe Asn Trp Ser Pro Arg Val Asn Pro Ser Gln
 20 25 30
 Asp Val Thr Met Arg Thr Arg Glu Ala Gln Phe Gly Asp Gly Tyr Thr
 35 40 45

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Thr | Ser | Gly | Asp | Gly | Leu | Asn | Pro | Arg | Ser | Gln | Ser | Trp | Asp | Leu |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Thr | Phe | Val | Gly | Leu | Glu | Pro | Tyr | Ile | Lys | Ser | Ile | Lys | Asp | Phe | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Arg | His | Glu | Gly | Thr | Lys | Ala | Phe | Ala | Trp | Lys | Pro | Pro | Leu | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Leu | Gly | Leu | Tyr | Arg | Cys | Lys | Gln | Tyr | Lys | Pro | Ser | Pro | Met | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Gly | Asn | Trp | Ser | Leu | Thr | Ala | Thr | Phe | Ile | Gln | Ala | Phe | Lys | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |

<210> 7470

<211> 241

<212> PRT

<213> Enterobacter cloacae

<400> 7470

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Ala | Asp | Met | Arg | Gln | Lys | Thr | Ile | Asp | Ala | Ile | Met | Ala | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ala | Ala | Glu | Tyr | Pro | Arg | Glu | Cys | Cys | Gly | Val | Val | Ala | Gln | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Arg | Val | Glu | Arg | Tyr | Phe | Pro | Cys | Arg | Asn | Leu | Ala | Ala | Thr | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Asp | Asn | Phe | Val | Leu | Cys | Pro | Glu | Asp | Tyr | Ala | Ala | Ala | Glu | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Gly | Thr | Val | Ile | Ala | Ile | Val | His | Ser | His | Pro | Asp | Ala | Thr | Thr |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Gln | Pro | Ser | Glu | Leu | Asp | Lys | Ala | Gln | Cys | Asp | Ala | Thr | Leu | Leu | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Trp | His | Ile | Val | Ser | Trp | Pro | Glu | Gly | Asp | Leu | Arg | Thr | Ile | Gln | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Gly | Glu | Leu | Pro | Leu | Leu | Glu | Arg | Pro | Phe | Val | Leu | Gly | His | Phe |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asp | Cys | Trp | Gly | Leu | Val | Met | Ser | Tyr | Phe | Arg | Gln | Thr | His | Gly | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Leu | His | Asp | Tyr | Arg | Val | Asp | Tyr | Pro | Trp | Trp | Glu | Lys | Asp | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Asp | Asn | Phe | Tyr | Gln | Asp | Cys | Trp | Tyr | Glu | Cys | Gly | Phe | Arg | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Asp | Gly | Pro | Pro | Lys | Pro | Gly | Asp | Met | Val | Ile | Met | Gln | Val | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Asp | Lys | Trp | Asn | His | Ala | Gly | Ile | Leu | Leu | Glu | Gly | Asn | Met | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | His | His | Leu | Tyr | Gly | His | Leu | Ser | Gln | Arg | Val | Pro | Tyr | Gly | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Tyr | Trp | Gln | Glu | Arg | Thr | Met | Lys | Ile | Leu | Arg | Tyr | Lys | Ser | Leu | Cys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

<210> 7471

<211> 466

<212> PRT

<213> Enterobacter cloacae

<400> 7471

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Val | Ser | Leu | Arg | Met | Gly | Gly | Ala | Val | Cys | Arg | His | Arg | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | His | Gln | His | Leu | Asn | Val | Phe | Ile | Ser | Leu | Arg | Asn | Ala | Ser | Arg |

<213> Enterobacter cloacae

<400> 7472

Cys Phe Thr Leu Trp Arg Leu Glu Met Ala Asn His Arg Gly Gly Ser
 1 5 10 15
 Gly Asn Phe Ala Glu Asp Arg Glu Arg Ala Ser Glu Ala Gly Arg Lys
 20 25 30
 Gly Gly Gln Ser Ser Gly Gly Asn Phe Lys Asn Asp Pro Gln Arg Ala
 35 40 45
 Ser Glu Ala Gly Lys Lys Gly Gly Lys Asn Ser His Gly Ser Asn Lys
 50 55 60

65

<210> 7473

<211> 222

<212> PRT

<213> Enterobacter cloacae

<400> 7473

Ala Gln Asp Arg Lys Trp Arg Ala Lys Met Thr Gln Gly Ala Val Lys
 1 5 10 15
 Thr Pro Gly Lys Arg Ser Gln Ala Val Ser Ala Lys Lys Gln Ala Ile
 20 25 30
 Leu Ser Ala Ala Leu Glu Thr Phe Ser Gln Phe Gly Ile His Gly Thr
 35 40 45
 Arg Leu Glu Gln Val Ala Glu Gln Ala Gly Val Ser Lys Thr Asn Leu
 50 55 60
 Leu Tyr Tyr Tyr Pro Ser Lys Glu Ala Leu Tyr Val Ala Val Met Gln
 65 70 75 80
 Gln Ile Leu Asp Ile Trp Leu Ala Pro Leu Lys Ala Phe Arg Glu Glu
 85 90 95
 Leu Ala Pro Leu Val Ala Ile Glu Glu Tyr Ile Arg Leu Lys Leu Glu
 100 105 110
 Val Ser Arg Asp Tyr Pro Gln Ala Ser Arg Leu Phe Cys Leu Glu Met
 115 120 125
 Leu Gln Gly Ala Pro Leu Leu Gln Ala Glu Leu Thr Gly Asp Leu Lys
 130 135 140
 Gln Leu Val Asp Asp Lys Ser Ala Ile Ile Ala Gly Trp Val Ala Ser
 145 150 155 160
 Gly Lys Leu Ala Pro Val Asp Pro His Gln Leu Ile Phe Met Ile Trp
 165 170 175
 Ala Ser Thr Gln His Tyr Ala Asp Phe Ala Ala Gln Val Glu Ala Val
 180 185 190
 Thr Gly Lys Thr Leu Gln Asp Glu Ala Phe Phe Gln Ser Thr Leu Glu
 195 200 205
 Asn Val Gln Arg Met Ile Ile Glu Gly Ile Arg Val Arg
 210 215 220

<210> 7474

<211> 217

<212> PRT

<213> Enterobacter cloacae

<400> 7474

Met Trp Phe Ser Met Leu Ala Leu Ala Ser Ala Ser Ile Thr Gly Pro
 1 5 10 15
 Met Ser Val Val Arg Arg Pro Gly Leu Pro Met Arg His Ser Ala Ile
 20 25 30
 Ala Pro Arg Ser Ile Phe Ser Val Trp Ser Ala Thr Ser Ser Cys Lys
 35 40 45

His Ser Thr Arg Arg Ala Glu Gln Arg Trp Pro Ala Leu Ser Lys Ala
 50 55 60
 Glu Ala Ser Thr Ser Thr Thr Cys Ser Val Ser Ala Glu Glu Ser
 65 70 75 80
 Thr Ile Met Ala Phe Met Pro Pro Val Ser Ala Ile Ser Gly Val Gly
 85 90 95
 Arg Pro Cys Ala Ser Arg Arg Val Ala Met Leu Arg Cys Ser Arg Glu
 100 105 110
 Ala Thr Ser Val Glu Pro Val Asn Ile Thr Pro Arg Thr Arg Leu Ser
 115 120 125
 Glu Val Ser Leu Ala Pro Thr Val Ser Pro Arg Pro Gly Ser Ser Cys
 130 135 140
 Thr Thr Pro Ala Gly Thr Pro Ala Ser Ser Arg Met Leu Met Pro Trp
 145 150 155 160
 Ala Ala Ile Ser Gly Val Cys Ser Ala Gly Phe Ala Ser Thr Leu Leu
 165 170 175
 Pro Ala Ala Arg Ala Ala Ala Ile Trp Pro Val Lys Ile Ala Ser Gly
 180 185 190
 Lys Phe His Gly Leu Ile His Thr Thr Gly Pro Ser Gly Arg Trp Val
 195 200 205
 Ser Leu Ser Lys Ser Ser Arg Thr
 210 215

<210> 7475

<211> 178

<212> PRT

<213> Enterobacter cloacae

<400> 7475

Met Glu Asn Ser Phe Val Thr Gly Glu Ser Lys Met Ala Trp Leu Asp
 1 5 10 15
 Thr Leu Leu Asp His Phe Ala His Tyr Pro Thr His Leu Phe Ala Leu
 20 25 30
 Leu Val Val Met Ala Leu Ser Lys Ser Thr Val Leu Val Ser Ser Val
 35 40 45
 Leu Pro Pro Ala Ser Val Met Leu Met Ala Gly Ile Ala Val Ser Gln
 50 55 60
 Ser Ser Leu His Pro Gly Met Thr Trp Leu Ala Val Val Met Gly Ala
 65 70 75 80
 Thr Ala Gly Ser Val Leu Asn Tyr His Ile Gly Gln Leu Met Gly His
 85 90 95
 Thr Arg Leu Val Ser Arg Leu Thr Ala Lys His Ala Asp Lys Ile Leu
 100 105 110
 Arg Val Gln His Gln Leu Gln Lys Asn Gly Val Val Ala Leu Phe Thr
 115 120 125
 Ser Arg Phe Leu Ala Val Leu Arg Tyr Ile Val Pro Leu Ala Ala Gly
 130 135 140
 Met Leu Arg Met Ser Ala Met Lys Val Tyr Val Val Ser Leu Leu Ser
 145 150 155 160
 Ala Cys Ala Trp Ala Ala Leu Tyr Val Gly Ile Val Thr Gly Ile Ser
 165 170 175
 Ile

<210> 7476

<211> 503

<212> PRT

<213> Enterobacter cloacae

<400> 7476

Met Ala Ile Ser Thr Pro Met Leu Val Thr Phe Leu Val Tyr Ile Phe

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 5 | | | | 10 | | | | 15 | | | | | | |
| Gly | Met | Ile | Leu | Ile | Gly | Phe | Leu | Ala | Trp | Arg | Ser | Thr | Lys | Asn | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Asp | Tyr | Ile | Leu | Gly | Gly | Arg | Ser | Leu | Gly | Pro | Met | Val | Thr | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ser | Ala | Gly | Ala | Ser | Asp | Met | Ser | Gly | Trp | Leu | Leu | Met | Gly | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Pro | Gly | Ala | Ile | Phe | Ile | Ser | Gly | Ile | Ser | Glu | Ser | Trp | Ile | Ala | Ile |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Gly | Leu | Thr | Val | Gly | Ala | Trp | Ile | Asn | Trp | Lys | Leu | Val | Ala | Gly | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Arg | Val | His | Thr | Glu | Ala | Asn | Asn | Asn | Ala | Leu | Thr | Leu | Pro | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Phe | Thr | Gly | Arg | Phe | Glu | Asp | Asn | Ser | Arg | Ile | Leu | Arg | Ile | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Val | Val | Ile | Leu | Leu | Phe | Phe | Thr | Ile | Tyr | Cys | Ala | Ser | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ile | Val | Ala | Gly | Ala | Arg | Leu | Phe | Glu | Ser | Thr | Phe | Gly | Met | Ser | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Thr | Ala | Leu | Trp | Ala | Gly | Ala | Ala | Ala | Thr | Ile | Leu | Tyr | Thr | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Gly | Gly | Phe | Leu | Ala | Val | Ser | Trp | Thr | Asp | Thr | Val | Gln | Ala | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Met | Ile | Phe | Ala | Leu | Ile | Leu | Thr | Pro | Val | Ile | Val | Ile | Phe | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Gly | Gly | Phe | Gly | Glu | Ser | Leu | Glu | Val | Ile | Lys | Gln | Lys | Ser | Ile |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Glu | Asn | Val | Asp | Met | Leu | Lys | Gly | Leu | Asn | Phe | Val | Ala | Ile | Val | Ser |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Leu | Met | Gly | Trp | Gly | Leu | Gly | Tyr | Phe | Gly | Gln | Pro | His | Ile | Leu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Phe | Met | Ala | Ala | Asp | Ser | His | His | Thr | Ile | Val | His | Ala | Arg | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Ser | Met | Thr | Trp | Met | Ile | Leu | Cys | Leu | Ala | Gly | Ala | Cys | Ala | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Phe | Phe | Gly | Ile | Ala | Tyr | Phe | Asn | Asn | Asn | Pro | Ala | Gln | Ala | Gly |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Ala | Val | Asn | Gln | Asn | Ala | Glu | Arg | Val | Phe | Ile | Glu | Leu | Ala | Gln | Ile |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Leu | Phe | Asn | Pro | Trp | Ile | Ala | Gly | Ile | Leu | Leu | Ser | Ala | Ile | Leu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Val | Met | Ser | Thr | Leu | Ser | Cys | Gln | Leu | Leu | Val | Cys | Ser | Ser | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Thr | Glu | Asp | Leu | Tyr | Lys | Ala | Phe | Leu | Arg | Lys | Gly | Ala | Ser | Gln |
| | | 355 | | | | 360 | | | | | | | | | |

Thr Lys Leu Gln Ala Glu
500

<210> 7477

<211> 325

<212> PRT

<213> Enterobacter cloacae

<400> 7477

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Ile | Lys | Gly | Ile | Ala | His | Tyr | Arg | Ile | Asp | Ser | Ser | Cys | Trp |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Cys | Pro | Met | Ser | Val | Ser | Arg | Phe | Thr | Leu | Ser | Ile | Lys | Pro | Gln | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ile | Leu | Ile | Leu | Ile | Thr | Met | Phe | Trp | Gly | Gly | Thr | Phe | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Gln | Tyr | Ala | Val | Thr | Met | Ser | Asp | Pro | Phe | Phe | Phe | Val | Gly | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Phe | Ala | Thr | Ala | Ala | Val | Ala | Val | Ala | Leu | Ile | Ser | Leu | Lys | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Arg | Gly | Leu | Thr | Leu | Arg | Glu | Leu | Lys | Ala | Gly | Val | Ala | Ile | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Val | Ala | Ile | Ala | Met | Gly | Tyr | Ser | Leu | Gln | Thr | Trp | Gly | Leu | Gln | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Ser | Ser | Ser | Lys | Ser | Ala | Phe | Ile | Thr | Ala | Met | Tyr | Val | Pro | Leu |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Val | Pro | Leu | Leu | Gln | Trp | Leu | Cys | Leu | Gly | Arg | Met | Pro | Gly | Leu | Met |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Cys | Ile | Gly | Ile | Val | Leu | Ala | Phe | Ile | Gly | Leu | Ile | Leu | Leu | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Pro | Glu | Asn | Asn | Leu | Leu | Ala | Leu | Gly | Pro | Gly | Glu | Ile | Ile | Thr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Val | Gly | Ala | Val | Ala | Ile | Ala | Ala | Glu | Ile | Ile | Leu | Ile | Ser | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Trp | Ala | Gly | Lys | Val | Asp | Val | Lys | Arg | Val | Thr | Val | Val | Gln | Leu | Ala |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Thr | Ala | Ser | Leu | Val | Ala | Phe | Ala | Thr | Met | Val | Pro | Ala | Gly | Glu | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Pro | Pro | Met | Ser | Thr | Gly | Leu | Ile | Val | Val | Ala | Leu | Gly | Leu | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Phe | Ser | Ala | Ile | Ile | Gln | Val | Thr | Met | Asn | Trp | Ala | Gln | Arg | Ser |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Val | Ser | Pro | Thr | Arg | Ala | Thr | Val | Ile | Tyr | Thr | Gly | Glu | Pro | Val | Trp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Gly | Ile | Phe | Gly | Arg | Leu | Ala | Gly | Glu | Arg | Leu | Pro | Leu | Leu | Ala |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Leu | Val | Gly | Ala | Ala | Phe | Ile | Ile | Ala | Gly | Val | Leu | Val | Ser | Glu | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Leu | Lys | Lys | Arg | Arg | Lys | Ala | Thr | Ala | Gly | Leu | Ser | Ala | Glu | Gln |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Arg | Ala | Asp | Ser | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 325 |

<210> 7478

<211> 364

<212> PRT

<213> Enterobacter cloacae

<400> 7478

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Leu | Gln | Leu | Ile | Val | Ile | Glu | Ile | Ala | Leu | Ala | Phe | Phe | Phe |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Leu | His | Ala | Glu | Ser | Gly | Leu | Phe | Ile | Ile | Lys | Tyr | Val | Ser | Gly | Phe |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Phe | Glu | Ser | Leu | Leu | Lys | Phe | Ala | Ala | Glu | Gly | Thr | Asn | Phe | Val | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Gly | Met | Gly | Glu | Lys | Gly | Leu | Ala | Phe | Ile | Phe | Leu | Gly | Val | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Pro | Ile | Ile | Phe | Ile | Ser | Ala | Leu | Ile | Gly | Ile | Leu | Gln | His | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Ile | Leu | Pro | Ile | Phe | Ile | Arg | Val | Ile | Gly | Thr | Leu | Leu | Ser | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Asn | Gly | Met | Gly | Lys | Leu | Glu | Ser | Phe | Asn | Ala | Val | Ser | Ser | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Leu | Gly | Gln | Ser | Glu | Asn | Phe | Ile | Ala | Tyr | Lys | Gly | Val | Leu | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Leu | Ser | Ser | Arg | Arg | Leu | Phe | Thr | Met | Ala | Ala | Thr | Ala | Met | Ser |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Thr | Val | Ser | Leu | Ser | Ile | Val | Gly | Ala | Tyr | Met | Thr | Met | Leu | Asp | Ala |
| 145 | | | | | 150 | | | | | | 155 | | | | 160 |
| Lys | Phe | Val | Val | Ala | Ala | Leu | Ile | Leu | Asn | Met | Phe | Ser | Thr | Phe | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Leu | Ser | Val | Ile | Asn | Pro | Thr | Arg | Pro | Glu | Ala | Glu | Pro | Asp | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Leu | Glu | Lys | Leu | His | Glu | Ser | Gln | Ser | Phe | Phe | Glu | Met | Leu | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Tyr | Ile | Leu | Ala | Gly | Phe | Lys | Val | Ala | Met | Ile | Ile | Leu | Ala | Met |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Ile | Gly | Phe | Ile | Ala | Leu | Ile | Ser | Ala | Val | Asn | Ala | Leu | Phe | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Ile | Phe | Gly | Met | Ser | Phe | Gln | Gln | Ile | Leu | Gly | Tyr | Val | Phe | Tyr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Leu | Ala | Trp | Leu | Ile | Gly | Ile | Pro | Leu | Ser | Asp | Ala | Leu | Asn | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Ser | Ile | Met | Ala | Thr | Lys | Leu | Val | Ala | Asn | Glu | Phe | Val | Ala | Met |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Glu | Leu | Gln | Lys | Ile | Ala | His | Gln | Met | Ser | Pro | Arg | Gly | Leu | Gly |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Ile | Leu | Ser | Val | Phe | Leu | Val | Ser | Phe | Ala | Asn | Phe | Ala | Ser | Ile | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Val | Ala | Gly | Ala | Ile | Lys | Gly | Leu | Asn | Glu | Gln | Gln | Gly | Asn | Val |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Val | Ser | Arg | Phe | Gly | Leu | Arg | Leu | Val | Tyr | Gly | Ala | Thr | Leu | Val | Ser |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Leu | Ser | Ala | Ser | Phe | Ala | Gly | Leu | Val | Leu | | | | | |
| | | 355 | | | | | 360 | | | | | | | | |

<210> 7479

<211> 108

<212> PRT

<213> Enterobacter cloacae

<400> 7479

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Gln | Pro | Gln | Pro | Ser | Pro | Pro | Asp | Asp | Pro | Ser | Gly | Glu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Leu | Gly | Gln | Arg | Asn | Gln | Thr | Arg | Pro | Asp | Gly | Arg | Ser | Gly |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Arg | Leu | Ser | Gly | Leu | Tyr | Pro | Gln | Gly | Leu | His | Arg | Arg | Leu | Leu | Pro |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Arg | Leu | Arg | Glu | Lys | Thr | Ala | Arg | Arg | Ala | Glu | Pro | Asp | Leu | Ser | Ala |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Val | Arg | His | Pro | Gln | Arg | Pro | His | Pro | Gly | Gly | Asp | Leu | Gln | Pro | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Gly | Ser | Glu | Leu | Leu | Ser | Gly | Pro | Val | Arg | Val | Pro | Val | Ser | Ala | Arg |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 85 | | | | | 90 | | 95 |
| His | Gly | Arg | Thr | Ala | Val | Arg | Ala | Gly | Asp | Arg |
| | | | 100 | | | | | 105 | | |

<210> 7480
 <211> 147
 <212> PRT
 <213> Enterobacter cloacae

<400> 7480
 Phe Leu Arg Arg Ala Gly Ser Pro Ala Arg Pro Tyr Arg Leu Arg Arg
 1 5 10 15
 Thr Ala Met Pro Lys Ser Val Ile Ile Pro Pro Gly Thr Ser Thr Pro
 20 25 30
 Ile Ala Pro Phe Val Pro Gly Thr Leu Ala Asp Gly Val Val Tyr Val
 35 40 45
 Ser Gly Thr Leu Pro Phe Asp Lys Asp Asn Asn Val Val Phe Ile Asn
 50 55 60
 Asp Pro Lys Gly Gln Thr Arg His Val Leu Glu Thr Ile Lys Thr Val
 65 70 75
 Ile Glu Thr Ala Gly Thr Met Glu Asp Val Thr Phe Asn Ser Ile
 85 90 95
 Phe Ile Thr Asp Trp Lys Asn Tyr Ala Ala Ile Asn Glu Ile Tyr Ala
 100 105 110
 Glu Phe Phe Pro Gly Asp Lys Pro Ala Arg Phe Cys Ile Gln Cys Gly
 115 120 125
 Leu Val Lys Pro Glu Ala Leu Val Glu Ile Ala Thr Val Ala His Ile
 130 135 140
 Ala Lys
 145

<210> 7481
 <211> 372
 <212> PRT
 <213> Enterobacter cloacae

<400> 7481
 Leu Pro Leu Arg Asp Thr Val Tyr Ser Ala Glu Pro Arg Thr Trp Gly
 1 5 10 15
 Ser Pro Phe Arg His Ala Leu Ser Cys Ser Pro Leu Arg Asp Phe Ile
 20 25 30
 Ile Gln Arg Glu Phe Thr Met Ser Tyr Ala Ile His Asn Gln Asn Leu
 35 40 45
 Ala Phe Asn Asp Ser Ala Ile Ala Gln Tyr Met Asn Thr Asp Phe Ile
 50 55 60
 Val Ile Asp Ile Ser Leu Cys Val Ala Leu Ala Arg Glu Gln Phe Phe
 65 70 75 80
 Glu Lys Leu Lys Asp Asp Ile Pro Ser His Ile Phe Ile Glu Asp
 85 90 95
 Asn Gly Arg Ile Ala Gly Leu Ile Ala Val Arg Lys Leu Leu Gln Ala
 100 105 110
 Thr Asp Thr Val Gln Pro Val Lys Gly Leu Met Ile Ser Asp Phe Ile
 115 120 125
 Gln Leu Lys Pro Glu Asp Glu Arg Ala Asp Val Ala Gly Leu Leu Ala
 130 135 140
 His Ala Gly Ala Asp Val Val Pro Val Val Thr His Gly Lys Leu Val
 145 150 155 160
 Gly Cys Leu Thr Glu Arg Glu Ile Ala His Leu Leu Glu Asp Asp Val
 165 170 175
 Thr Glu Asp Ala Gln Leu Gln Gly Ala Thr Leu Pro Leu Glu Lys Pro
 180 185 190

Tyr Leu Glu Thr Ser Ala Phe Ser Leu Trp Lys Lys Arg Ser Val Trp
 195 200 205
 Leu Leu Leu Phe Val Ala Glu Ala Tyr Thr Ser Ser Val Ile Gln
 210 215 220
 His Phe Glu Glu Ala Leu Glu Ser Ala Ile Ala Leu Ala Phe Phe Ile
 225 230 235 240
 Pro Leu Leu Ile Gly Thr Gly Gly Asn Ser Gly Thr Gln Ile Thr Ser
 245 250 255
 Thr Leu Val Arg Ala Met Ala Leu Gly Glu Val His Leu Arg Asp Val
 260 265 270
 Gly Arg Val Leu Arg Lys Glu Met Ser Thr Ser Leu Met Ile Ala Ala
 275 280 285
 Thr Leu Gly Leu Ala Gly Cys Val Arg Ala Trp Met Met Gly Ile Gly
 290 295 300
 Met Glu Ile Thr Leu Ile Val Ser Leu Thr Leu Val Cys Ile Thr Leu
 305 310 315 320
 Trp Ser Ala Ile Val Ser Ser Val Ile Pro Met Val Leu Lys Arg Cys
 325 330 335
 Lys Ile Asp Pro Ala Val Val Ser Ala Pro Phe Ile Ala Thr Leu Ile
 340 345 350
 Asp Gly Thr Gly Leu Ile Ile Tyr Phe Lys Ile Ala Gln Tyr Thr Leu
 355 360 365
 Gly Leu Glu
 370

<210> 7482

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 7482

Leu Cys Leu Thr Thr Ile Met Asn Phe Leu Phe Ile Ser Asp Asn Tyr
 1 5 10 15
 Tyr Leu Cys His Gly Val Ser Ser Ser Leu Thr Ser Thr His Leu Ile
 20 25 30
 Arg Asp Asp Ala Asp Ile His Asp Leu Asp Gly Val Asp Gln Ala Met
 35 40 45
 Asp Phe Ile Ile Ala Ile Glu Gln Asp Lys Leu Arg Asn Lys Thr Ile
 50 55 60
 Arg Gln Val Lys Lys Val Lys Cys Asp Tyr Ile Val Leu Met His Glu
 65 70 75 80
 Ile Glu Ala Asn Ser Ala Val Arg Ile Asp Asn Ile Ile Tyr Ser Ser
 85 90 95
 Met His Phe Thr Ala His Pro Phe Gln Gln Leu Met Arg Phe Tyr Arg
 100 105 110
 Ala Leu Arg Thr His Ser Phe Thr Arg Arg Glu Tyr Asp Val Leu Lys
 115 120 125
 Leu Phe His Leu Glu Asn His Glu Ile Ala Lys Lys Leu Gln Leu Ser
 130 135 140
 Gln Lys Thr Thr Ser Thr Tyr Arg Val Arg Ile Leu Glu Lys Leu Asn
 145 150 155 160
 Met Arg Ser Lys Asn Ile Leu Ala Met Thr Arg Val Lys Ser Ala Ile
 165 170 175
 Val Asp

<210> 7483

<211> 1364

<212> PRT

<213> Enterobacter cloacae

<400> 7483

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Thr | Ile | His | Ser | Phe | Ser | Ser | Leu | Gln | Thr | Arg | Ser | His | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Arg | Leu | His | Lys | Val | Ala | Thr | Trp | Trp | Ile | Phe | His | Ala | Ile | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Thr | Leu | Leu | Gln | Asn | Asn | Arg | Ser | Phe | Gly | Met | Gly | Met | Thr | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Gly | Val | Lys | Leu | Asp | Asp | Ala | Thr | Arg | Glu | Arg | Ile | Lys | Thr | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Thr | Arg | Ile | Asp | Arg | Thr | Pro | His | Trp | Leu | Ile | Lys | Gln | Ala | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Asn | Tyr | Leu | Glu | Arg | Leu | Glu | Ser | Glu | Glu | Gly | Leu | Pro | Glu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Pro | Ala | Leu | Leu | Ala | Gly | Ala | Ala | Asn | Glu | Ser | Glu | Glu | Ala | Ala | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Val | Glu | Glu | Asn | His | Gln | Pro | Phe | Leu | Glu | Phe | Ala | Glu | Gln | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Pro | Gln | Ser | Val | Ser | Arg | Ala | Ala | Ile | Thr | Gly | Ala | Tyr | Arg | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Glu | Thr | Asp | Ala | Val | Pro | Met | Leu | Leu | Glu | Gln | Ala | Arg | Leu | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Ala | Val | Ala | Ala | Gln | Ala | His | Ser | Leu | Ala | Tyr | Gln | Leu | Ala | Asp |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Lys | Leu | Arg | Asn | Gln | Lys | Thr | Ala | Ser | Gly | Arg | Ala | Gly | Met | Val | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Leu | Leu | Gln | Glu | Phe | Ser | Leu | Ser | Ser | Gln | Glu | Gly | Val | Ala | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Met | Cys | Leu | Ala | Glu | Ala | Leu | Leu | Arg | Ile | Pro | Asp | Lys | Ala | Thr | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Ala | Leu | Ile | Arg | Asp | Lys | Ile | Ser | Asn | Gly | Asn | Trp | His | Ser | His |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Gly | Arg | Ser | Pro | Ser | Leu | Phe | Val | Asn | Ala | Ala | Thr | Trp | Gly | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Phe | Thr | Gly | Lys | Leu | Val | Ser | Thr | His | Asn | Glu | Ala | Asn | Leu | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Ser | Leu | Asn | Arg | Ile | Ile | Gly | Lys | Ser | Gly | Glu | Pro | Leu | Ile | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Lys | Gly | Val | Asp | Met | Ala | Met | Arg | Leu | Met | Gly | Glu | Gln | Phe | Val | Thr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gly | Glu | Thr | Ile | Ala | Glu | Ala | Leu | Ala | Asn | Ala | Arg | Lys | Leu | Glu | Asp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Lys | Gly | Phe | Arg | Tyr | Ser | Tyr | Asp | Met | Leu | Gly | Glu | Ala | Ala | Leu | Thr |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Ala | Ala | Asp | Ala | Gln | Ala | Tyr | Met | Val | Ser | Tyr | Gln | Gln | Ala | Ile | His |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Ala | Ile | Gly | Lys | Ala | Ser | Asn | Gly | Arg | Gly | Ile | Tyr | Glu | Gly | Pro | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Ser | Ile | Lys | Leu | Ser | Ala | Leu | His | Pro | Arg | Tyr | Ser | Arg | Ala | Gln |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Tyr | Asp | Arg | Val | Met | Glu | Glu | Leu | Tyr | Pro | Arg | Leu | Lys | Ser | Leu | Thr |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Leu | Ala | Arg | Gln | Tyr | Asp | Ile | Gly | Ile | Asn | Ile | Asp | Ala | Glu | Asp |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ala | Asp | Arg | Leu | Glu | Ile | Ser | Leu | Asp | Leu | Leu | Glu | Lys | Leu | Cys | Phe |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Glu | Pro | Glu | Leu | Ala | Gly | Trp | Asn | Gly | Ile | Gly | Phe | Val | Ile | Gln | Ala |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Tyr | Gln | Lys | Arg | Cys | Pro | Phe | Val | Ile | Asp | Tyr | Leu | Ile | Asp | Leu | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ser | Arg | Ser | Arg | Arg | Arg | Leu | Met | Ile | Arg | Leu | Val | Lys | Gly | Ala | Tyr |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Asp | Ser | Glu | Ile | Lys | Arg | Ala | Gln | Met | Glu | Gly | Leu | Glu | Gly | Tyr |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Pro | Val | Tyr | Thr | Arg | Lys | Val | Tyr | Thr | Asp | Val | Ser | Tyr | Leu | Ala | Cys |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ala | Lys | Lys | Leu | Leu | Gly | Val | Pro | Asn | Leu | Ile | Tyr | Pro | Gln | Phe | Ala |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Thr | His | Asn | Ala | His | Thr | Leu | Ala | Ala | Ile | Tyr | Ser | Leu | Ala | Gly | Gln |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Asn | Tyr | Tyr | Pro | Gly | Gln | Tyr | Glu | Phe | Gln | Cys | Leu | His | Gly | Met | Gly |
| 545 | | | | 550 | | | | | | 555 | | | | | 560 |
| Glu | Pro | Leu | Tyr | Glu | Gln | Val | Thr | Gly | Lys | Val | Ala | Asp | Gly | Lys | Leu |
| | | | 565 | | | | | 570 | | | | | | 575 | |
| Asn | Arg | Pro | Cys | Arg | Ile | Tyr | Ala | Pro | Val | Gly | Thr | His | Glu | Thr | Leu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Leu | Ala | Tyr | Leu | Val | Arg | Arg | Leu | Leu | Glu | Asn | Gly | Ala | Asn | Thr | Ser |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Phe | Val | Asn | Arg | Ile | Ala | Asp | Thr | Thr | Leu | Pro | Leu | Asp | Glu | Leu | Val |
| | 610 | | | | | 615 | | | | | | 620 | | | |
| Ala | Asp | Pro | Val | Gln | Ala | Val | Glu | Lys | Met | Ala | Ala | Gln | Glu | Gly | Gln |
| 625 | | | | 630 | | | | | | 635 | | | | | 640 |
| Ile | Gly | Leu | Pro | His | Pro | Lys | Ile | Ala | Leu | Pro | Arg | Glu | Leu | Tyr | Gly |
| | | | 645 | | | | | | 650 | | | | | 655 | |
| Ala | Gly | Arg | Val | Asn | Ser | Ala | Gly | Leu | Asp | Leu | Ala | Asn | Glu | His | Arg |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Leu | Ala | Ser | Leu | Ser | Ser | Ala | Leu | Leu | Asn | Ser | Ala | Leu | Gln | Lys | Trp |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Gln | Ala | Arg | Pro | Ile | Leu | Glu | Gln | Ser | Val | Glu | Asp | Gly | Glu | Met | Gln |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Pro | Val | Ile | Asn | Pro | Ala | Glu | Pro | Lys | Asp | Ile | Val | Gly | Tyr | Val | Arg |
| 705 | | | | 710 | | | | | | 715 | | | | | 720 |
| Glu | Ala | Thr | Glu | Thr | Glu | Val | Glu | Gln | Ala | Leu | Glu | Ser | Ala | Val | Asn |
| | | | 725 | | | | | | 730 | | | | | 735 | |
| Asn | Ala | Pro | Ile | Trp | Phe | Ala | Thr | Pro | Pro | Gln | Glu | Arg | Ala | Ala | Ile |
| | | | 740 | | | | 745 | | | | | | 750 | | |
| Leu | Glu | Arg | Ala | Ala | Val | Leu | Met | Glu | Asp | Gln | Met | Gln | Gln | Leu | Ile |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Gly | Ile | Leu | Val | Arg | Glu | Ala | Gly | Lys | Thr | Leu | Ser | Asn | Ala | Ile | Ala |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Glu | Val | Arg | Glu | Ala | Val | Asp | Phe | Leu | His | Tyr | Tyr | Ala | Gly | Gln | Val |
| | | | 790 | | | | | | | 795 | | | | | 800 |
| Arg | Asp | Asp | Phe | Asp | Asn | Glu | Thr | His | Arg | Pro | Leu | Gly | Pro | Val | Val |
| | | | 805 | | | | | | 810 | | | | | 815 | |
| Cys | Ile | Ser | Pro | Trp | Asn | Phe | Pro | Leu | Ala | Ile | Phe | Thr | Gly | Gln | Ile |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Ala | Ala | Ala | Leu | Ala | Ala | Gly | Asn | Ser | Val | Leu | Ala | Lys | Pro | Ala | Glu |
| | | 835 | | | | | 840 | | | | | 845 | | | |
| Gln | Thr | Pro | Leu | Ile | Ala | Ala | Gln | Gly | Ile | Asn | Ile | Leu | Leu | Glu | Ala |
| | 850 | | | | | 855 | | | | | 860 | | | | |
| Gly | Val | Pro | Ala | Gly | Val | Val | Gln | Leu | Leu | Pro | Gly | Arg | Gly | Glu | Thr |
| 865 | | | | 870 | | | | | | 875 | | | | | 880 |
| Val | Gly | Ala | Lys | Leu | Thr | Ser | Asp | Asn | Arg | Val | Arg | Gly | Val | Met | Phe |
| | | | 885 | | | | | 890 | | | | | | 895 | |
| Thr | Gly | Ser | Thr | Glu | Val | Ala | Ser | Leu | Leu | Gln | Arg | Asn | Ile | Ala | Thr |
| | | | 900 | | | | | 905 | | | | | 910 | | |
| Arg | Leu | Asp | Ala | Gln | Gly | Arg | Pro | Thr | Pro | Leu | Ile | Ala | Glu | Thr | Gly |
| | | 915 | | | | | 920 | | | | | 925 | | | |
| Gly | Met | Asn | Ala | Met | Ile | Val | Asp | Ser | Ser | Ala | Leu | Thr | Glu | Gln | Val |
| | 930 | | | | | 935 | | | | | 940 | | | | |
| Val | Val | Asp | Val | Leu | Ala | Ser | Ala | Phe | Asp | Ser | Ala | Gly | Gln | Arg | Cys |
| 945 | | | | 950 | | | | | | 955 | | | | | 960 |
| Ser | Ala | Leu | Arg | Val | Leu | Cys | Leu | Gln | Asp | Asp | Val | Ala | Asp | His | Thr |


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<210> 7484
<211> 149
<212> PRT
<213> Enterobacter cloacae
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<400> 7484
Arg Cys Ala Asn Lys Ala Pro Glu Thr Glu Pro Tyr Phe Ile Gly Glu
1 5 10 15
Cys Met Lys Arg Tyr Leu Ile Ala Gly Ala Ala Leu Leu Leu Ser Ala


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<210> 7485
<211> 261
<212> PRT
<213> Enterobacter cloacae
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| | |
|-------|------|
| <210> | 7486 |
| <211> | 286 |

| | |
|-------|------|
| <210> | 7486 |
| <211> | 286 |

<212> PRT

<213> Enterobacter cloacae

<400> 7486

```

Ser Pro Lys Arg Trp Leu Lys Leu Pro Pro Leu Arg Thr Ser Arg Ser
1      5      10      15
Glu Ala Ala Met Lys Leu Ser Ile Ser Pro Pro Pro Phe Ala Gly Ala
20      25      30
Pro Val Val Val Leu Ile Ala Gly Leu Gly Gly Ser Gly Ser Tyr Trp
35      40      45
Leu Pro Gln Leu Ala Val Leu Gly Gln Glu Tyr Gln Val Val Cys Tyr
50      55      60
Asp Gln Arg Gly Thr Gly Asp Asn Pro Asp Thr Leu Pro Glu Asp Tyr
65      70      75      80
Thr Leu Ala His Met Ala Asp Glu Leu Ala Leu Ala Leu Ala Gly Ala
85      90      95
Gly Ile Ala Arg Tyr Cys Val Val Gly His Ala Leu Gly Ala Leu Val
100      105      110
Gly Leu Arg Leu Ala Ile Asp Lys Pro Asp Ala Leu Thr Ala Leu Val
115      120      125
Cys Val Asn Gly Trp Leu Thr Leu Asn Ala His Thr Arg Arg Cys Phe
130      135      140
Asp Val Arg Glu Arg Leu Leu His Ala Gly Gly Ala Gln Ala Trp Val
145      150      155      160
Glu Ala Gln Pro Leu Phe Leu Tyr Pro Ala Asp Trp Met Ala Ala Arg
165      170      175
Ala Pro Arg Leu Glu Ala Glu Asp Ala Leu Ala Leu Ala His Phe Gln
180      185      190
Gly Lys Ala Asn Leu Leu Arg Arg Leu His Ala Leu Lys Gln Ala Asp
195      200      205
Phe Ser Arg His Ala Ala Arg Val Arg Cys Pro Val Gln Ile Ile Cys
210      215      220
Ser Thr Asp Asp Leu Leu Val Pro Ser Val Cys Ser Asp Glu Leu His
225      230      235      240
Ala Ala Leu Pro His Ala Arg Lys Thr Val Met Arg Gln Gly Gly His
245      250      255
Ala Cys Asn Val Thr Ala Pro Asp Ile Phe Asn Thr Leu Leu Leu Asn
260      265      270
Gly Leu Ala Ser Leu Leu His Ser Pro Glu Pro Ala Leu
275      280      285

```

<210> 7487

<211> 197

<212> PRT

<213> Enterobacter cloacae

<400> 7487

```

Met Ser Glu Ala Ile Thr Pro Ala Ala Leu Glu Thr Leu Phe Thr Gly
1      5      10      15
Ala Arg Thr His Asn Gly Trp Leu Asp Ile Pro Val Ser Asp Glu Thr
20      25      30
Leu Arg Glu Ile Tyr Asp Leu Met Lys Trp Gly Pro Thr Ser Ala Asn
35      40      45
Cys Ser Pro Ala Arg Ile Val Phe Val Arg Ser Pro Glu Gly Lys Glu
50      55      60
Lys Leu Arg Pro Ala Leu Ser Ser Gly Asn Leu Glu Lys Thr Leu Thr
65      70      75      80
Ala Pro Val Thr Ala Ile Val Ala Trp Asp Ser Glu Phe Tyr Glu Arg
85      90      95
Leu Pro Glu Leu Phe Pro His Gly Asp Ala Arg Ser Trp Phe Thr Ala
100      105      110

```


Ser Pro Ala Leu Ala Glu Glu Thr Ala Phe Arg Asn Ser Ser Met Gln
 115 120 125
 Ala Ala Phe Leu Ile Phe Ala Cys Arg Ala Leu Gly Leu Asp Thr Gly
 130 135 140
 Pro Met Ser Gly Phe Asp Arg Glu Lys Val Asp Ala Ala Phe Phe Thr
 145 150 155 160
 Gly Thr Leu Leu Lys Ser Asn Leu Leu Ile Asn Ile Gly Tyr Gly Asp
 165 170 175
 Thr Thr Glu Leu Tyr Gly Arg Leu Pro Arg Leu Thr Phe Glu Asp Ala
 180 185 190
 Cys Gly Leu Ala
 195

<210> 7488

<211> 201

<212> PRT

<213> Enterobacter cloacae

<400> 7488

Cys Lys Met Ala Lys Val Leu Val Leu Tyr Tyr Ser Met Tyr Gly His
 1 5 10 15
 Ile Glu Thr Met Ala His Ala Val Ala Glu Gly Ala Asn Arg Val Asp
 20 25 30
 Gly Val Glu Val Val Val Lys Arg Val Pro Glu Thr Met Gln Ala Glu
 35 40 45
 Ala Phe Ala Lys Ala Gly Gly Lys Thr Gln Asn Ala Pro Val Ala Thr
 50 55 60
 Pro Gln Glu Leu Ala Asp Tyr Asp Ala Ile Ile Phe Gly Thr Pro Thr
 65 70 75 80
 Arg Phe Gly Asn Met Ser Gly Gln Met Arg Thr Phe Leu Asp Gln Thr
 85 90 95
 Gly Gly Leu Trp Ala Ser Gly Ala Leu Tyr Gly Lys Leu Ala Ser Val
 100 105 110
 Phe Ser Ser Thr Gly Thr Gly Gly Gly Gln Glu Gln Thr Ile Thr Ser
 115 120 125
 Thr Trp Thr Thr Leu Ala His His Gly Met Val Ile Val Pro Ile Gly
 130 135 140
 Tyr Gly Ala Gln Glu Leu Phe Asp Val Ser Gln Val Arg Gly Gly Thr
 145 150 155 160
 Pro Tyr Gly Ala Thr Thr Ile Ala Gly Gly Asp Gly Ser Arg Gln Pro
 165 170 175
 Ser Asn Glu Glu Leu Ser Ile Ala Arg Tyr Gln Gly Glu Tyr Val Ala
 180 185 190
 Gly Leu Ala Lys Lys Leu Asn Gly
 195 200

<210> 7489

<211> 82

<212> PRT

<213> Enterobacter cloacae

<400> 7489

Pro Asn Arg Arg Thr Ser Met Pro Thr Gln Glu Ser Lys Ala His His
 1 5 10 15
 Val Gly Glu Trp Ala Ser Leu Arg Asn Thr Ser Pro Glu Ile Ala Glu
 20 25 30
 Ala Ile Phe Glu Val Ala Asn Tyr Asp Glu Lys Leu Ala Glu Gln Ile
 35 40 45
 Trp Glu Glu Gly Asn Asp Glu Val Leu Val Arg Ala Phe Lys Lys Thr
 50 55 60
 Asp Lys Asp Ser Leu Phe Trp Gly Glu Gln Thr Ile Glu Arg Lys Asn

65
Val

70

75

80

<210> 7490

<211> 61

<212> PRT

<213> Enterobacter cloacae

<400> 7490

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Cys | Trp | Arg | Ala | Ser | Met | Ile | Ser | Ala | Leu | Thr | Ser | Thr | Pro | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Arg | Thr | Val | Trp | Arg | Ser | Pro | Ser | Ile | Cys | Trp | Lys | Asn | Cys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ser | Arg | Ser | Trp | Arg | Ala | Gly | Thr | Gly | Leu | Val | Ser | Leu | Ser | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Thr | Arg | Asn | Ala | Ala | Arg | Ser | Ser | Leu | Thr | Thr | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | |

<210> 7491

<211> 393

<212> PRT

<213> Enterobacter cloacae

<400> 7491

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Pro | Asn | Asn | Lys | Val | Ile | Phe | Lys | Thr | Gly | Thr | Ala | Phe | Ala | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Pro | Leu | His | Leu | Arg | Arg | Asn | Glu | Glu | Arg | Phe | Val | Met | Lys | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Val | Phe | Val | Pro | Ile | Gly | Asn | Gly | Trp | Leu | Ile | Ser | Thr | Thr | |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Pro | Gln | Tyr | Met | Pro | Thr | Phe | Glu | Leu | Asn | Lys | Ala | Ile | Val | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Ala | Glu | His | Tyr | His | Phe | Asp | Phe | Ala | Leu | Ser | Met | Ile | Lys | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Arg | Gly | Phe | Gly | Gly | Lys | Thr | Glu | Phe | Trp | Asp | His | Asn | Leu | Glu | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Thr | Leu | Met | Ala | Gly | Leu | Ala | Ala | Val | Thr | Ser | Arg | Ile | Gln | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Ala | Thr | Ala | Ala | Thr | Leu | Thr | Leu | Pro | Pro | Ala | Ile | Val | Ala | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Ala | Ser | Thr | Ile | Asp | Ser | Ile | Ser | Gly | Gly | Arg | Phe | Gly | Val | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Val | Thr | Gly | Trp | Gln | Lys | Pro | Glu | Tyr | Glu | Gln | Met | Gly | Leu | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Pro | Gly | Asp | Asp | Tyr | Phe | Ser | Arg | Arg | Tyr | Asp | Tyr | Leu | Thr | Glu | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Gln | Val | Leu | Arg | Asp | Leu | Trp | Gly | Thr | Gly | Lys | Ser | Asp | Phe | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Asp | Phe | Phe | Thr | Met | Asn | Asp | Cys | Arg | Val | Ser | Pro | Gln | Pro | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Pro | Met | Lys | Val | Ile | Cys | Ala | Gly | Gln | Ser | Asp | Ala | Gly | Met | Glu |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Phe | Ser | Ala | Lys | Tyr | Ala | Asp | Phe | Asn | Phe | Cys | Phe | Gly | Lys | Gly | Val |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Asn | Thr | Pro | Ala | Ala | Phe | Ala | Pro | Thr | Ala | Ala | Arg | Met | Lys | Glu | Ala |
| | | | | 245 | | | | | | 250 | | | | 255 | |
| Ala | Asp | Lys | Thr | Gly | Arg | Asp | Val | Gly | Ser | Tyr | Val | Leu | Phe | Met | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Ala | Asp | Glu | Thr | Asp | Glu | Ala | Ala | Arg | Ala | Lys | Trp | Gln | Arg | Tyr |
| | | 275 | | | | | 280 | | | | | | 285 | | |

Lys Asp Gly Ala Asp Glu Glu Ala Leu Ser Trp Leu Thr Glu Gln Ser
 290 295 300
 Gln Lys Asp Thr Arg Ser Gly Ala Asp Thr Asn Val Arg Gln Met Ala
 305 310 315 320
 Asp Pro Thr Ser Ala Val Asn Ile Asn Met Gly Thr Leu Val Gly Ser
 325 330 335
 Tyr Ala Ser Val Ala Arg Met Leu Asp Glu Val Ala Ala Val Pro Gly
 340 345 350
 Ala Glu Gly Val Leu Leu Thr Phe Asp Asp Phe Leu Thr Gly Val Glu
 355 360 365
 Thr Phe Gly Glu Arg Ile Gln Pro Leu Met Gln Cys Arg Ala His Ile
 370 375 380
 Pro Ala Val Thr Lys Glu Val Ala
 385 390

<210> 7492

<211> 168

<212> PRT

<213> Enterobacter cloacae

<400> 7492

Gly Ala Ile Met Thr Thr Leu Asp Gln Gln Thr Phe Arg Asp Ala Met
 1 5 10 15
 Ala Cys Val Gly Ala Ala Val Asn Ile Ile Thr Thr Asp Gly Pro Ala
 20 25 30
 Gly Met Ala Gly Phe Thr Ala Ser Ala Val Cys Ser Val Thr Asp Thr
 35 40 45
 Pro Pro Thr Leu Leu Val Cys Leu Asn Arg Gly Ala Ser Val Trp Pro
 50 55 60
 Ile Phe Ser Glu Asn Arg Thr Leu Cys Val Asn Thr Leu Ser Ala Gly
 65 70 75 80
 Gln Glu Pro Leu Ser Ser Leu Phe Gly Gly Lys Thr Pro Met Ala Asp
 85 90 95
 Arg Phe Ala Ala Ala Arg Trp Gln Thr Gly Glu Thr Gly Cys Pro Arg
 100 105 110
 Leu Glu Ala Ala Leu Ala Ser Phe Asp Cys Arg Ile Ser Gln Val Val
 115 120 125
 Ser Val Gly Thr His Asp Ile Leu Phe Cys Asp Ile Val Ser Ile Ile
 130 135 140
 Arg His Pro Ala Pro Gln Gly Leu Val Trp Phe Asp Arg Gly Tyr His
 145 150 155 160
 Ala Leu Met Arg Pro Ala Cys
 165

<210> 7493

<211> 448

<212> PRT

<213> Enterobacter cloacae

<400> 7493

Ser Ala Phe Arg Arg Gln Ile Met Phe Gly Leu Pro His Trp Gln Leu
 1 5 10 15
 Lys Ser Thr Ser Thr Glu Glu Gly Val Val Ala Pro Asp Glu Arg Leu
 20 25 30
 Pro Leu Gly Gln Thr Met Val Met Gly Val Gln His Ala Val Ala Met
 35 40 45
 Phe Gly Ala Thr Val Leu Met Pro Met Leu Met Gly Leu Asp Pro Asn
 50 55 60
 Leu Ala Ile Leu Met Ser Gly Met Gly Thr Leu Leu Phe Phe Phe Val
 65 70 75 80
 Thr Gly Gly Arg Val Pro Ser Tyr Leu Gly Ser Ser Ala Ala Phe Val


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<210> 7494
<211> 894
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Phe | Leu | Gln | Trp | Asn | Gly | Trp | Thr | Ala | Ala | Tyr | Phe | Gly | Thr | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Ser | Gln | Glu | Thr | Pro | Ala | Ser | Pro | Thr | Glu | Ala | Arg | Ile | Lys | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Arg | Arg | Ile | Ser | Pro | Phe | Trp | Leu | Leu | Pro | Val | Ile | Ala | Leu | Met |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ile | Ala | Gly | Trp | Leu | Ile | Trp | Thr | Ser | Tyr | Glu | Asp | Arg | Gly | Ser | Thr |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ile | Thr | Ile | Asp | Phe | Gln | Ser | Ala | Asp | Gly | Ile | Val | Ala | Gly | Arg | Thr |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 65 | | | | | 70 | | | | 75 | | | | 80 | | | |
| Pro | Val | Arg | Phe | Gln | Gly | Val | Glu | Val | Gly | Thr | Val | Gln | Asp | Ile | Ser | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Gly | Lys | Gly | Leu | Asn | Lys | Ile | Gln | Val | Arg | Ala | Ser | Ile | Lys | Ser | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Asp | Met | Gln | Asp | Ala | Leu | Arg | Ala | Glu | Thr | Gln | Phe | Trp | Leu | Val | Thr | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Pro | Lys | Ala | Ser | Leu | Ala | Gly | Val | Ser | Gly | Leu | Asp | Ala | Leu | Val | Gly | |
| | 130 | | | | | 135 | | | | 140 | | | | | | |
| Gly | Asn | Tyr | Ile | Gly | Met | Met | Pro | Gly | Lys | Gly | Glu | Pro | Gln | Asp | His | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Phe | Val | Ala | Leu | Asp | Thr | Gln | Pro | Lys | Tyr | Arg | Leu | Asn | Asn | Gly | Asp | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Leu | Met | Ile | His | Leu | Arg | Ala | Pro | Asp | Leu | Gly | Ser | Leu | Asn | Ser | Gly | |
| | | 180 | | | | | | 185 | | | | | 190 | | | |
| Ser | Leu | Val | Tyr | Phe | Arg | Lys | Ile | Pro | Val | Gly | Arg | Val | Tyr | Asp | Tyr | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Ala | Ile | Asn | Pro | Asn | Lys | Asp | Gly | Val | Thr | Ile | Asp | Val | Leu | Ile | Glu | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Arg | Arg | Phe | Thr | Asn | Leu | Val | Lys | Lys | Gly | Ser | Arg | Phe | Trp | Asn | Val | |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 | |
| Ser | Gly | Val | Asp | Ala | Asp | Leu | Ser | Leu | Ser | Gly | Ala | Lys | Val | Lys | Leu | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Glu | Ser | Leu | Ala | Ala | Leu | Val | Asn | Gly | Ala | Ile | Ala | Phe | Asp | Ser | Pro | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Ala | Asp | Ser | Ser | Pro | Ala | Ala | Ala | Glu | Asp | Thr | Phe | Gly | Leu | Tyr | Ala | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Asp | Leu | Ala | His | Ser | Gln | Arg | Gly | Val | Ile | Val | Lys | Leu | Thr | Leu | Pro | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Asp | Ala | Lys | Gly | Leu | Lys | Ala | Gly | Ser | Thr | Pro | Leu | Met | Tyr | Gln | Gly | |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 | |
| Leu | Glu | Val | Gly | Gln | Leu | Thr | Lys | Leu | Thr | Leu | Asn | Ala | Gly | Gly | Ser | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Val | Thr | Gly | Glu | Met | Thr | Val | Asp | Pro | Ser | Val | Val | Asp | Leu | Leu | Arg | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Glu | Lys | Thr | Arg | Ile | Glu | Leu | Arg | Asn | Pro | Lys | Leu | Ser | Leu | Ser | Asp | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Ala | Ser | Ile | Ser | Ser | Leu | Leu | Thr | Gly | Ser | Thr | Phe | Glu | Leu | Ile | Pro | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Gly | Glu | Gly | Ala | Pro | Asn | Lys | Asn | Phe | Val | Ile | Ala | Pro | Ala | Asp | Lys | |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 | |
| Ala | Leu | Leu | Gln | Lys | Pro | Gly | Val | Leu | Thr | Val | Thr | Leu | Asn | Ala | Pro | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Glu | Ser | Tyr | Gly | Ile | Glu | Ala | Gly | Gln | Pro | Leu | Ile | Leu | His | Gly | Val | |
| | | | 420 | | | | | | | | | | | | | |

Thr Val Arg Pro Arg Ala Asp Ala Phe Asp Ile Glu Leu His Ile Lys
 565 570 575
 Pro Glu Tyr Arg Lys Leu Leu Thr Pro Asn Ser Val Phe Trp Ala Glu
 580 585 590
 Gly Gly Ala Lys Val Gln Leu Asn Gly Ser Gly Leu Thr Val Gln Ala
 595 600 605
 Ser Pro Leu Ser Arg Ala Leu Arg Gly Ala Ile Ser Phe Asp Asn Leu
 610 615 620
 Ser Gly Ala Gly Gly Asn Met Arg Lys Gly Asp Lys Arg Ile Leu Phe
 625 630 635 640
 Pro Ser Glu Thr Ala Ala Arg Ala Val Gly Gly Gln Ile Thr Leu His
 645 650 655
 Thr Phe Asp Ala Gly Lys Leu Ala Glu Gly Met Pro Ile Arg Tyr Leu
 660 665 670
 Gly Ile Asp Ile Gly Gln Ile Gln Lys Leu Thr Leu Ile Thr Ala Arg
 675 680 685
 Asn Glu Val Gln Ala Thr Ala Val Leu Tyr Pro Glu Tyr Val Gln Thr
 690 695 700
 Phe Ala Arg Ala Gly Ser Arg Phe Ser Val Val Thr Pro Gln Ile Ser
 705 710 715 720
 Ala Ala Gly Val Glu His Leu Asp Thr Ile Leu Gln Pro Tyr Ile Asn
 725 730 735
 Val Glu Pro Gly Arg Gly Asn Ala Arg Arg Glu Phe Glu Leu Gln Glu
 740 745 750
 Ala Thr Ile Thr Asp Ser Arg Tyr Leu Asp Gly Leu Ser Ile Val Val
 755 760 765
 Glu Val Pro Glu Ala Gly Ser Leu Gly Ile Gly Thr Pro Val Leu Phe
 770 775 780
 Arg Gly Ile Glu Val Gly Thr Val Thr Ser Leu Thr Leu Gly Asn Leu
 785 790 795 800
 Ser Asp Arg Val Met Val Gly Leu Arg Ile Ser Gln Arg Tyr Gln His
 805 810 815
 Leu Val Arg Asn Asn Ser Val Phe Trp Leu Ala Ser Gly Tyr Ser Leu
 820 825 830
 Asp Phe Gly Leu Thr Gly Gly Val Val Lys Thr Gly Thr Phe Asn Gln
 835 840 845
 Phe Ile Arg Gly Gly Ile Ala Phe Ala Thr Pro Pro Gly Thr Pro Leu
 850 855 860
 Ala Pro Lys Ala Gln Ala Gly Lys His Phe Leu Leu Glu Ser Glu
 865 870 875 880
 Pro Lys Glu Trp Arg Glu Trp Gly Thr Ala Leu Pro Arg
 885 890

<210> 7495

<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 7495

Leu His Trp Ser Tyr Gln Ile Leu Gly Asn Lys Pro Glu Ser Ile Met
 1 5 10 15
 Thr Lys Thr Ser Val Arg Ile Gly Ala Phe Glu Ile Asp Asp Ala Glu
 20 25 30
 Leu Arg Gly Glu Ser Gln Gly Glu Arg Thr Leu Ser Ile Pro Cys Lys
 35 40 45
 Ser Asp Pro Asp Leu Cys Met Gln Leu Asp Ala Trp Asp Ala Asp Thr
 50 55 60
 Ser Val Pro Ala Ile Leu Asp Gly Glu His Ser Val Leu Tyr Arg Glu
 65 70 75 80
 His Tyr Asp Ser Lys Thr Asp Ala Trp Val Leu Arg Leu Ala
 85 90 95

<210> 7496
 <211> 368
 <212> PRT
 <213> Enterobacter cloacae

<400> 7496

```

Thr Gly Val Gly Phe Arg Glu Ser Lys Gln Thr Ile Asn Gln Pro Glu
1      5      10      15
Ile Lys Ile Ala Leu Leu Ile Pro Tyr Ser Leu Ala Phe Lys Ile
20      25      30
Glu Arg Asn Lys Lys Arg Asp Phe His Val Ser Asn Ile His Leu Gln
35      40      45
Asn Asp Val Phe Tyr Pro His Arg Thr Asn Ile Ile Ser Glu Leu Val
50      55      60
Arg Gly Lys Arg Val Pro Gly Pro Ile Trp His Lys Arg Asp Tyr Arg
65      70      75      80
Leu Lys Phe Leu Leu Arg Ser Leu Leu Phe Trp Ser Ser Thr His Arg
85      90      95
Met Leu Glu Ala Leu Ser Gly Arg Asp Phe Asp Arg Leu Leu Thr
100     105     110
Ser Gln Ile Thr Leu Pro Ser Lys Thr His Arg Gln Tyr Leu Met Arg
115     120     125
Gly Leu Asn Ser Asn Asp Arg Ala Asp Ala Ile Val Ser His Tyr Gln
130     135     140
Trp Ile Asp Ser Leu Lys Asn Ile Ala Leu Ala His Ala Leu Thr Ser
145     150     155     160
Pro Gln Glu Val Pro Val Val Arg Phe Glu Ala Lys Asn Gly Glu Ile
165     170     175
Tyr Thr Val His Ala Ser Ser Ala Gly Lys Ala Glu Arg Glu Gly Glu
180     185     190
Ser Thr Leu Trp Leu His Asp Asn Asp Asn Thr Leu Leu Ala Ser Leu
195     200     205
Thr Phe Cys Val Ala Arg Ser Asn Gly Arg Thr Val Leu Val Ile Gly
210     215     220
Gly Leu Gln Gly Pro Arg Arg His Val Ser Arg Glu Val Ile Lys Gln
225     230     235     240
Ala Thr Arg Ala Cys His Gly Leu Phe Pro Lys Arg Val Leu Met Glu
245     250     255
Val Ile Phe Gln Leu Ala Ser Arg Ser Asn Ile Ser Ala Ile Phe Ala
260     265     270
Val Ser Asp Glu Gly His Val Phe Arg Ala Leu Arg Tyr Arg Leu Ser
275     280     285
Lys Gly Arg His Phe His Ala Ser Tyr Asp Glu Phe Trp Glu Gly Leu
290     295     300
Asn Gly Lys Lys Leu Ser Pro Phe Cys Trp Gln Leu Pro Leu Gln Met
305     310     315     320
Glu Arg Lys Ala Leu Glu Glu Ile Ala Ser Lys Lys Arg Ala Glu Tyr
325     330     335
Arg Arg Arg Phe Ala Leu Leu Asp Asp Ile Ala Ala Ser Val Gln Ala
340     345     350
Arg Ile Asp Pro Ala Val Val Ser Gly Lys Ile Gln Thr Lys Ile
355     360     365

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<210> 7497
 <211> 91
 <212> PRT
 <213> Enterobacter cloacae

<400> 7497

Thr Ile Ala Val Thr Leu Pro Pro Gln Lys Lys Glu Lys Glu Met Asn

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Val | Asn | Leu | Ala | Ala | Leu | Pro | Gln | Asp | Glu | Met | Asp | Lys | Val |
| | | | 20 | | | | | 25 | | | | | 30 |
| Asp | Leu | Ala | Ala | Ala | Gly | Val | Ala | Phe | Lys | Glu | Arg | Tyr | Asn |
| | | 35 | | | | | 40 | | | | | 45 | Met |
| Val | Val | Ala | Glu | Val | Val | Glu | Arg | Glu | Gln | Pro | Ala | His | Leu |
| | 50 | | | | | 55 | | | | | 60 | | Arg |
| Trp | Phe | Arg | Glu | Arg | Leu | Ile | Ala | His | Arg | Leu | Ala | Ser | Val |
| 65 | | | | | 70 | | | | | 75 | | | Asn |
| | | | | | | | | | | | | | 80 |
| Ser | Arg | Leu | Pro | Tyr | Glu | Pro | Lys | Val | Lys | | | | |
| | | | | 85 | | | | | 90 | | | | |

<210> 7498

<211> 228

<212> PRT

<213> Enterobacter cloacae

<400> 7498

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Pro | Ser | Asp | Leu | Val | Tyr | Lys | Glu | Val | Thr | Met | Ser | Arg | Trp | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Ala | Ala | Ala | Gln | Tyr | Ala | Pro | Arg | His | Asn | Cys | Val | Asp | Glu | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Lys | His | His | Leu | His | Phe | Ile | Ala | Glu | Ala | Ala | Trp | His | Gly | Cys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Leu | Ile | Val | Phe | Pro | Glu | Leu | Ser | Leu | Thr | Gly | Pro | Gly | Gly | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Leu | Pro | Pro | Pro | Pro | Asp | Asp | Leu | Gln | Leu | Ala | Pro | Leu | Leu | His |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ala | Gln | Ser | Arg | Phe | Ile | Thr | Val | Ile | Ala | Gly | Ile | Thr | Leu | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | His | Gly | Gln | Arg | Gln | Lys | Gly | Leu | Ala | Leu | Phe | Thr | Pro | Asn | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Thr | Ile | Arg | Arg | Tyr | Pro | Gln | Gly | Asn | Gly | Ala | Gly | Val | Ile | Pro |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Gly | Asp | Lys | Arg | Leu | Thr | Ile | Val | Asp | Asn | Gln | Ala | Asp | Ala | Pro | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Asp | Pro | Glu | Ala | Thr | Leu | Phe | Thr | Ser | Ser | Leu | Ala | Val | Gly | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Arg | Trp | Arg | Gln | Ser | Ile | Gly | Ser | Leu | Gln | Arg | Phe | Ala | His | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Tyr | Ala | Ile | Ala | Val | Leu | Met | Ala | Asn | Ala | Arg | Gly | Gly | Ser | Ala | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Trp | Asp | Glu | Lys | Gly | Gln | Leu | Ile | Val | Arg | Ala | Asp | Lys | Gly | Glu | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Leu | Thr | Gly | Ser | Leu | Gly | Gln | Gln | Gly | Trp | Gln | Gly | Asp | Ile | Ile |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Leu | Gly | | | | | | | | | | | | | |
| 225 | | | | | | | | | | | | | | | |

<210> 7499

<211> 226

<212> PRT

<213> Enterobacter cloacae

<400> 7499

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Gln | Glu | Arg | Ser | Met | Leu | Arg | Val | Ile | Asp | Thr | Glu | Thr | Cys | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Gln | Gly | Gly | Ile | Val | Glu | Val | Ala | Ser | Val | Asp | Val | Ile | Asp | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ile | Val | Asn | Pro | Met | Ser | His | Leu | Val | Arg | Pro | Asp | Arg | Pro | Ile |
| | 35 | | | | | | 40 | | | | | 45 | | | |

Ser Ala Gln Ala Met Ala Ile His Arg Ile Thr Glu Ser Met Val Ala
 50 55 60
 Asp Lys Pro Trp Ile Glu Ile Ile Pro Leu Tyr His Gly Ser Gln
 65 70 75 80
 Trp Tyr Val Ala His Asn Ala Ser Phe Asp Arg Arg Val Leu Pro Glu
 85 90 95
 Met Pro Gly Glu Trp Ile Cys Thr Met Lys Leu Ala Arg Arg Leu Trp
 100 105 110
 Pro Gly Ile Lys Tyr Ser Asn Met Ala Leu Tyr Lys Ser Arg Lys Leu
 115 120 125
 Ser Val Arg Thr Pro Glu Gly Leu His His His Arg Ala Leu Tyr Asp
 130 135 140
 Cys Tyr Ile Thr Ala Ala Leu Leu Ile Asp Ile Met Asn Thr Ser Gly
 145 150 155 160
 Trp Thr Pro Asp Asp Met Ala Thr Ile Thr Gly Arg Pro Ala Leu Leu
 165 170 175
 Thr Thr Phe Thr Phe Gly Lys Tyr Arg Gly Lys Pro Val Ser Glu Val
 180 185 190
 Ala Asp Lys Asp Pro Gly Tyr Leu Arg Trp Leu Tyr Asn Asn Leu Asp
 195 200 205
 Arg Met Ser Pro Glu Leu Arg Leu Thr Leu Lys His Tyr Leu Gly Glu
 210 215 220
 Ala
 225

<210> 7500

<211> 438

<212> PRT

<213> Enterobacter cloacae

<400> 7500

Leu Ser Thr Ile Leu Ile Cys Val Arg Leu Met Ala Leu Lys Thr Pro
 1 5 10 15
 Gln Ile Thr Pro Thr Arg Lys Ile Val Val Arg Thr Val Ser Gln Ala
 20 25 30
 Leu Pro Arg Ala His Tyr Gln Arg Cys Pro Gln Cys Asp Thr Leu Phe
 35 40 45
 Met Leu Pro Lys Met Lys Ser His Gln Ser Ala Phe Cys Pro Cys Cys
 50 55 60
 Asp Ala Lys Ile Arg Asp Gly Arg Asp Trp Ser Leu Thr Arg Leu Ala
 65 70 75 80
 Ala Met Ala Val Thr Met Leu Leu Leu Met Pro Phe Ala Trp Thr Glu
 85 90 95
 Pro Leu Leu Lys Leu Tyr Leu Leu Gly Val Arg Ile Asp Ala Asn Val
 100 105 110
 Leu Gln Gly Ile Trp Gln Met Thr Arg Gln Gly Asp Pro Leu Thr Ala
 115 120 125
 Ala Met Val Leu Phe Cys Val Val Gly Ala Pro Leu Val Leu Val Ala
 130 135 140
 Ala Ile Ala Tyr Leu Trp Phe Gly Asn Ile Leu Gly Met Asn Leu Arg
 145 150 155 160
 Pro Val Leu Leu Met Leu Glu Lys Leu Lys Glu Trp Val Met Leu Asp
 165 170 175
 Ile Tyr Leu Val Gly Val Gly Val Ala Ser Ile Lys Val Gln Asp Tyr
 180 185 190
 Ala Phe Leu Gln Pro Gly Ile Gly Leu Phe Ala Phe Ile Ser Leu Val
 195 200 205
 Leu Leu Ser Ile Leu Thr Leu Ile His Leu Asn Val Glu Gln Leu Trp
 210 215 220
 Glu Arg Phe Tyr Pro Gln Arg Pro Ala Thr Arg Pro Asp Asp Asn Leu
 225 230 235 240

Arg Val Cys Leu Gly Cys His Tyr Thr Gly Phe Pro Asp Lys Arg Gly
 245 250 255
 Arg Cys Pro Arg Cys His Ile Pro Leu Arg Arg Asn Asn Ser
 260 265 270
 Leu Gln Lys Cys Trp Ala Ala Leu Ile Ala Ser Leu Val Phe Leu Phe
 275 280 285
 Pro Ala Asn Met Leu Pro Ile Ser Val Ile Tyr Val Asn Gly Ala Arg
 290 295 300
 Gln Glu Asp Thr Ile Leu Ser Gly Ile Ile Ser Leu Ala His Ser Asn
 305 310 315 320
 Val Gly Val Ala Ala Ile Val Phe Ile Ala Ser Ile Leu Val Pro Phe
 325 330 335
 Thr Lys Val Val Val Met Phe Thr Leu Ile Ser Ile His Phe Lys
 340 345 350
 Cys Glu Gln Gly Leu Arg Thr Arg Ile Leu Leu Leu Arg Phe Val Thr
 355 360 365
 Trp Ile Gly Arg Trp Ser Met Leu Asp Leu Phe Val Ile Ser Leu Met
 370 375 380
 Met Ser Leu Ile Asn Arg Asp Gln Leu Leu Ala Phe Thr Met Gly Pro
 385 390 395 400
 Ala Ala Phe Tyr Phe Gly Ser Ala Val Ile Leu Thr Ile Leu Ala Val
 405 410 415
 Glu Trp Leu Asp Ser Arg Leu Leu Trp Asp Ala His Glu Ser Gly Asn
 420 425 430
 Ala Arg Phe Ala Asp
 435

<210> 7501

<211> 488

<212> PRT

<213> Enterobacter cloacae

<400> 7501

Met Phe Pro Cys Gly Val Pro Val Ala Gln Asn Ser Val Phe Leu Pro
 1 5 10 15
 Glu Gln Phe Leu Ala Gln Met Arg Glu Ala Leu Pro Ala His Leu Ser
 20 25 30
 Phe Asp Asp Phe Val Ala Ala Cys Gln Arg Pro Leu Arg Arg Ser Ile
 35 40 45
 Arg Val Asn Thr Leu Lys Thr Ser Val Gly Ala Phe Leu Asp Leu Val
 50 55 60
 Ser Pro Tyr Gly Trp Gln Leu Thr Pro Val Pro Trp Cys Glu Glu Gly
 65 70 75 80
 Phe Trp Ile Glu Arg Asp Asp Glu Glu Ser Leu Pro Leu Gly Ser Thr
 85 90 95
 Ala Glu His Leu Ser Gly Leu Phe Tyr Ile Gln Glu Ala Ser Ser Met
 100 105 110
 Leu Pro Val Ala Ala Leu Phe Ala Asp Gly Asn Gln Pro Glu Arg Val
 115 120 125
 Met Asp Val Ala Ala Ala Pro Gly Ser Lys Thr Thr Gln Ile Ala Ala
 130 135 140
 Arg Met Asn Asn Arg Gly Ala Ile Leu Ala Asn Glu Phe Ser Ala Ser
 145 150 155 160
 Arg Val Lys Val Leu His Ala Asn Ile Ser Arg Cys Gly Ile His Asn
 165 170 175
 Val Ala Leu Thr His Phe Asp Gly Arg Val Phe Gly Ala Ala Leu Pro
 180 185 190
 Glu Ala Phe Asp Ala Ile Leu Leu Asp Ala Pro Cys Ser Gly Glu Gly
 195 200 205
 Val Val Arg Lys Asp Pro Asp Ala Leu Lys Asn Trp Ser Val Glu Ser
 210 215 220


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Asn Leu Gln Ile Ala Ala Thr Gln Arg Glu Leu Ile Asp Ser Ala Phe
225          230          235          240
His Ala Leu Arg Pro Gly Gly Thr Leu Val Tyr Ser Thr Cys Thr Leu
          245          250          255
Asn Arg Asp Glu Asn Glu Asp Val Cys Leu Trp Leu Lys Gln Arg Tyr
          260          265          270
Val Asp Ala Val Glu Phe Leu Pro Leu Asp Thr Leu Phe Asp Ser Ala
          275          280          285
Ser His Ala Ala Thr Pro Glu Gly Phe Leu His Val Phe Pro Gln Ile
          290          295          300
Tyr Asp Cys Glu Gly Phe Phe Val Ala Arg Leu Arg Lys Thr Arg Ala
305          310          315          320
Val Asp Pro Leu Pro Ala Pro Lys Phe Lys Val Gly Asn Phe Pro Phe
          325          330          335
Ala Pro Val Lys Gly Arg Glu Ala Ala Gln Ala Gln Ala Ala Ala Ser
          340          345          350
Lys Val Gly Leu His Trp Asp Glu Ser Leu Arg Leu Trp Met Arg Asp
          355          360          365
Lys Glu Leu Trp Leu Phe Pro Val Asn Ile Glu Pro Leu Ile Gly Lys
          370          375          380
Val Arg Phe Ser Arg Leu Gly Ile Arg Leu Ala Glu Ile His Asn Lys
385          390          395          400
Gly Tyr Arg Trp Gln His Glu Ala Val Ile Ala Leu Ala Gly Ser Glu
          405          410          415
Asn Thr Phe Ala Leu Thr His Gln Glu Ala Glu Glu Trp Tyr Arg Gly
          420          425          430
Arg Asp Val Tyr Pro Glu Asp Gly Pro Leu Gln Asp Glu Val Ile Val
          435          440          445
Thr Tyr Gln Gly Tyr Pro Leu Gly Leu Ala Lys Lys Val Gly Ser Arg
          450          455          460
Leu Lys Asn Ser Tyr Pro Arg Glu Leu Val Arg Asp Gly Arg Leu Phe
465          470          475          480
Thr Gly Asn Asn Arg Ser Ala
          485

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<210> 7502

<211> 425

<212> PRT

<213> Enterobacter cloacae

<400> 7502

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Arg Ser Ala Asn Phe Pro Leu Val Arg Leu Ser Pro Tyr Lys Thr Asp
1          5          10          15
Ala Asn Val Phe Val Tyr Thr Thr Arg Ile Phe Phe Arg Gly Ile Phe
          20          25          30
Met Thr Leu Leu Gly Thr Ala Leu Arg Pro Ala Ala Thr Arg Val Met
          35          40          45
Leu Leu Gly Ser Gly Glu Leu Gly Lys Glu Val Ala Ile Glu Cys Gln
          50          55          60
Arg Leu Gly Val Glu Val Ile Ala Val Asp Arg Tyr Ala Asn Ala Pro
65          70          75          80
Ala Met His Val Ala His Arg Ser His Val Ile Asp Met Leu Asp Gly
          85          90          95
Asn Ala Leu Arg Ala Leu Ile Ala Glu Glu Lys Pro Asp Phe Val Val
          100          105          110
Pro Glu Ile Glu Ala Ile Ala Thr Glu Met Leu Val Ala Leu Glu Gln
          115          120          125
Glu Gly Gln Arg Val Val Pro Cys Ala Thr Ala Ala Lys Leu Thr Met
          130          135          140
Asn Arg Glu Gly Ile Arg Arg Leu Ala Ala Glu Glu Leu Gln Leu Pro
145          150          155          160

```


Thr Ser Ser Tyr Arg Phe Ala Gly Asp Lys Ala Ala Phe Leu Gln Ala
 165 170 175
 Val Glu Glu Ile Gly Tyr Pro Cys Ile Lys Pro Val Met Ser Ser
 180 185 190
 Ser Gly Lys Gly Gln Ser Phe Ile Arg Asp Ser Ser Thr Leu Asp Gln
 195 200 205
 Ala Trp Asp Tyr Ala Gln Gln Gly Gly Arg Ala Gly Ala Gly Arg Val
 210 215 220
 Ile Val Glu Gly Val Val Lys Phe Asp Phe Glu Ile Thr Leu Leu Thr
 225 230 235 240
 Val Ser Ala Val Asp Gly Val Tyr Phe Cys Asp Pro Ile Gly His Arg
 245 250 255
 Gln Glu Asp Gly Asp Tyr Arg Glu Ser Trp Gln Pro Gln Gln Met Ser
 260 265 270
 Ala Leu Ala Leu Ala Arg Ala Gln Glu Ile Ala Arg Lys Thr Val Leu
 275 280 285
 Ala Leu Gly Gly Tyr Gly Leu Phe Gly Val Glu Leu Phe Val Cys Gly
 290 295 300
 Asp Glu Val Ile Phe Ser Glu Val Ser Pro Arg Pro His Asp Thr Gly
 305 310 315 320
 Met Val Thr Leu Ile Ser Gln Asp Leu Ser Glu Phe Ala Leu His Val
 325 330 335
 Arg Ala Phe Leu Gly Leu Pro Val Gly Gly Ile Arg Gln Tyr Gly Pro
 340 345 350
 Ala Ala Ser Ala Val Ile Leu Pro Gln Leu Thr Ser Gln Asn Val Thr
 355 360 365
 Phe Asp Asn Val Glu Gly Ala Val Gly Ala Gly Leu Gln Val Arg Leu
 370 375 380
 Phe Gly Lys Pro Glu Ile Asp Gly Ser Arg Arg Leu Gly Val Ala Leu
 385 390 395 400
 Ala Thr Gly Glu Asn Val Asp Glu Ala Val Ala Arg Ala Lys Ile Ala
 405 410 415
 Ala Thr Ala Val Lys Val Thr Gly
 420 425

<210> 7503

<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 7503

Cys Thr Gly Ser Gln Ser Leu Arg Arg Pro Gly Glu Thr Gln Leu Tyr
 1 5 10 15
 Pro Arg Gln Asn Gly Ser Trp Arg Ser Gly Ala Val Ile Leu Leu Pro
 20 25 30
 Pro Gly Asp Glu Cys Leu Pro Gly Ser Trp Ser Val Leu Pro Gln Trp
 35 40 45
 Arg Lys Ala Leu Arg Ala Gly Leu Pro Ala Gln Gly Gln Pro Ala Ser
 50 55 60
 Gln Trp Gln Trp Pro Gln Phe Gln Ala Pro Arg Asn Pro Val Phe Pro
 65 70 75 80
 Arg Gln Leu Thr Pro Ala Gly His Cys Arg Gln Ala Tyr Arg
 85 90 95

<210> 7504

<211> 292

<212> PRT

<213> Enterobacter cloacae

<400> 7504

Asn Ser Met Leu Ala Leu Ser Tyr Val Ala Leu Leu Phe Ile His Phe


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<210> 7505
<211> 229
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Lys | Val | Thr | His | Cys | Tyr | Val | Arg | Lys | Asn | Met | Ser | Gly | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Met | Asn | Gln | Leu | Gln | Ser | Leu | Leu | Gly | Gln | Lys | Gly | Ser | Ser | Ser | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Gln | Gly | Leu | Ser | Lys | Leu | Leu | Val | Pro | Gly | Ala | Leu | Gly | Gly | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Gly | Leu | Leu | Val | Ala | Asn | Lys | Ser | Ser | Arg | Lys | Leu | Leu | Thr | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Gly | Thr | Gly | Ala | Leu | Leu | Ala | Gly | Gly | Gly | Ala | Ile | Ala | Gly | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Leu | Trp | Asn | Lys | Tyr | Lys | Asp | Lys | Val | Arg | Ser | Ala | His | Gln | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Pro | Gln | Tyr | Gly | Lys | Gln | Val | Ser | Pro | Leu | Asp | Leu | Arg | Thr | Glu |
| | | | 100 | | | | | 105 | | | | 110 | | | |
| Arg | Leu | Ile | Leu | Ala | Leu | Val | Phe | Ala | Ala | Lys | Ser | Asp | Gly | His | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Ala | Ser | Glu | Arg | Ala | Ala | Ile | Glu | Gln | Gln | Met | Arg | Glu | Ala | Gly |


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<210> 7506
<211> 701
<212> PRT
<213> Enterobacter cloacae
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|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| <400> 7506 | | | | | | | | | | | | | | | | |
| Asp 1 | Val | Lys | Arg | Lys 5 | Ser | Lys | Asn | Ala | Met 10 | Pro | Pro | Lys | Ala | Arg | Arg | |
| Thr | Pro | Tyr | Ala 20 | Ile | Thr | Thr | His | Gly 25 | Asp | Thr | Arg | Ile | Asp 30 | Asn | Tyr | |
| Tyr | Trp | Leu 35 | Arg | Asp | Asp | Ser | Arg 40 | Ser | Arg | Pro | Glu | Val 45 | Leu | Asp | Tyr | |
| Leu | His 50 | Glu | Glu | Asn | Asp | Tyr 55 | Gly | Arg | Gln | Val | Met 60 | Ala | Ser | Gln | Gln | |
| Ala 65 | Leu | Gln | Asp | Gln | Leu 70 | Leu | Asn | Glu | Met 75 | Val | Gln | Arg | Ile | Pro | Gln | |
| Arg | Asp | Val | Ser | Ala 85 | Pro | Trp | Cys | Lys | Asn 90 | Gly | Tyr | Arg | Tyr | Arg 95 | His | |
| Ile | Tyr | Glu | Pro 100 | Gly | Asn | Glu | Tyr | Pro 105 | Ile | Tyr | Gln | Arg | Gln | Ser | Val | |
| Leu | Ser | Ala 115 | Glu | Trp | Asp | Glu | Trp 120 | Glu | Ile | Leu | Leu | Asp 125 | Ala | Asn | Lys | |
| Arg | Ala 130 | Ala | His | Ser | Glu | Phe 135 | Tyr | Thr | Leu | Gly | Gly 140 | Met | Ser | Ile | Ser | |
| Pro 145 | Asp | Asn | Ala | Ile | Met 150 | Ala | Leu | Ala | Glu | Asp 155 | Tyr | Leu | Ser | Arg | Arg 160 | |
| Gln | Tyr | Gly | Leu | Arg 165 | Phe | Arg | Asn | Leu | Glu 170 | Thr | Gly | Asn | Trp | Tyr 175 | Pro | |
| Glu | Met | Leu | Asp 180 | Asn | Val | Ser | Pro | Asp 185 | Phe | Val | Trp | Gly | Asn 190 | Asp | Ser | |
| Glu | Thr | Val 195 | Tyr | Tyr | Val | Lys | Lys 200 | His | Ala | Ser | Thr | Leu | Leu 205 | Pro | Tyr | |
| Gln | Val 210 | Trp | Arg | His | Thr | Val 215 | Gly | Thr | Asp | Ser | Ala | Asp | Asp 220 | Glu | Leu | |
| Val 225 | Tyr | Glu | Glu | Lys | Asp 230 | Glu | Thr | Phe | Tyr | Val 235 | Ser | Leu | His | Lys | Thr 240 | |
| Ser | Ser | Arg | His | Tyr 245 | Val | Ile | Ile | Phe | Leu | Ser 250 | Ser | Ala | Thr | Thr 255 | Ser | |
| Glu | Val | Leu | Leu 260 | Leu | Asp | Ala | Glu | Leu 265 | Pro | Asp | Ala | Gln | Pro | Leu | Cys | |
| Phe | Leu | Pro | Arg | Arg | Lys | Asp | His 280 | Glu | Tyr | Ser | Leu | Asp 285 | His | Phe | Gln | |
| His | Ser 290 | Phe | Tyr | Leu | Arg | Ser 295 | Asn | Arg | Glu | Gly | Lys 300 | Asn | Phe | Gly | Leu | |
| Tyr 305 | Lys | Thr | Lys | Val | Arg 310 | Asp | Glu | Arg | Lys | Trp 315 | Glu | Val | Leu | Ile | Pro 320 | |
| Ala | Arg | Asp | Gln | Val | Met | Leu | Glu | Gly | Phe | Thr | Leu | Phe | Thr | Asp | Trp | |


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<210> 7507
<211> 114
<212> PRT
<213> Enterobacter cloacae
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| <400> 7507 | | | | | | | | | | | | | | | | |
| His | Met | Lys | Lys | Thr | Leu | Leu | Ser | Leu | Leu | Leu | Leu | Thr | Cys | Ala | Ser | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ser | Ala | Leu | Ala | Ala | Pro | Gln | Val | Ile | Thr | Val | Ser | Arg | Phe | Glu | Val | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Gly | Lys | Asp | Asn | Trp | Ala | Phe | Asn | Arg | Glu | Glu | Val | Met | Leu | Thr | Cys | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Arg | Pro | Gly | Asn | Ala | Leu | Tyr | Val | Ile | Asn | Pro | Ser | Thr | Leu | Val | Gln | |


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<210> 7508
<211> 167
<212> PRT
<213> Enterobacter cloacae
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<210> 7509
<211> 172
<212> PRT
<213> Enterobacter cloacae
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| Ser | Gly | Asn | Phe | Met | Glu | Asn | Gln | Pro | Lys | Leu | Asn | Ser | Ser | Lys | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ile | Ala | Phe | Leu | Ala | Glu | Arg | Phe | Pro | Gln | Cys | Phe | Ser | Ala | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Glu | Ala | Arg | Pro | Leu | Lys | Val | Gly | Ile | Phe | Gln | Asp | Leu | Val | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Val | Glu | Gly | Glu | Met | Asn | Leu | Ser | Lys | Thr | Gln | Leu | Arg | Ser | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Arg | Leu | Tyr | Thr | Ser | Ser | Trp | Arg | Tyr | Leu | Tyr | Gly | Ile | Lys | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Ala | Thr | Arg | Val | Asp | Leu | Asp | Gly | Asn | Pro | Cys | Gly | Glu | Leu | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Gln | His | Val | Glu | His | Ala | Arg | Lys | Gln | Leu | Glu | Glu | Ala | Lys | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Val | Gln | Ala | Gln | Arg | Ala | Glu | Gln | Gln | Ala | Lys | Lys | Arg | Glu | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Ala Ala Ala Asn Gly Gln Glu Asp Ala Pro Arg Arg Glu Arg Lys Pro
 130 135 140
 Arg Pro Ala Pro Arg Arg Thr Glu Asn Asn Asp Arg Lys Pro Arg Ala
 145 150 155 160
 Val Phe Thr His Gly Pro Gly Arg Thr Ala Ile Ala
 165 170

<210> 7510

<211> 130

<212> PRT

<213> Enterobacter cloacae

<400> 7510

Arg Lys Gly Met Ile Val Met His Phe Thr Pro Ser Arg Val Ala Cys
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 20 25 30
 His Ala His Leu Lys Gln Gln Ser Pro Gln Glu Asn Thr Val Ala Val
 35 40 45
 Ala Pro Glu Val Ile Thr Leu Asn Phe Ser Glu Gly Ile Glu Pro Ala
 50 55 60
 Phe Ser Gly Val Val Val Thr Asp Ala Gln Gln His Lys Ile Gln Thr
 65 70 75 80
 Gly Ala Val Lys Arg Asp Glu Lys Asp Asn Ala Lys Leu Ile Val Pro
 85 90 95
 Leu Glu Lys Pro Leu Thr Thr Gly Thr Tyr Thr Val Asp Trp His Val
 100 105 110
 Val Ser Val Asp Gly His Lys Thr Lys Gly Ser Tyr His Phe Ser Val
 115 120 125
 Lys
 130

<210> 7511

<211> 259

<212> PRT

<213> Enterobacter cloacae

<400> 7511

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 Gly Leu Trp Phe Val Trp Ile Arg Glu Ile Arg Arg Gln Phe Met Thr
 20 25 30
 Phe Ser Val Ala Ala Ile Leu Leu Thr Gly Gly Val Ile Tyr Gln Lys
 35 40 45
 Ile Glu Gly Glu His Trp Arg His Val Trp Val Ala Ser Asp Ile His
 50 55 60
 Gly Cys Tyr Gln Trp Leu Met Asp Glu Leu Lys Arg Arg His Phe Asn
 65 70 75 80
 Pro Asp Thr Asp Leu Leu Ile Ser Val Gly Asp Ile Ile Asp Arg Gly
 85 90 95
 Pro Asp Ser Val Lys Cys Leu Gln Leu Met Gln Glu Asn Trp Phe Tyr
 100 105 110
 Ala Ile Arg Gly Asn His Glu Gln Met Ala Leu Asp Ala Leu Ile Asn
 115 120 125
 Asn Asp Phe Ser Leu Trp Ser Ile Asn Gly Gly Asn Trp Phe Thr Gly
 130 135 140
 Leu Lys Asp Ala Gln Gln Lys Gln Ala Lys Gly Leu Leu Asp Ala Cys
 145 150 155 160
 Arg Asp Leu Pro His Ile Ile Glu Ile Thr Cys Lys Asn Gly Leu Asn
 165 170 175
 Val Ile Ala His Ala Asp Tyr Pro Ser Ala Glu Tyr Gly Trp His Lys


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<210> 7512
<211> 72
<212> PRT
<213> Enterobacter cloacae
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<211> 529
<212> PRT
<213> Enterobacter cloacae
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| Lys 1 | Phe | Asp | Glu | Lys 5 | Arg | Asp | Thr | Val | Asp 10 | Ser | Ile | Phe | Ser | Ile 15 | Gly |
| Ile | Gln | Ser | Leu 20 | Trp | Asp | Glu | Leu | Arg 25 | His | Met | Pro | Val | Gly 30 | Gly | Val |
| Trp | Trp | Val 35 | Asn | Thr | Asp | Arg | Asn 40 | Glu | Asp | Ala | Ile 45 | Ser | Leu | Val | Asn |
| Gln | Thr 50 | Ile | Ala | Ala | Gln | Gly 55 | Lys | Asp | Ser | Arg | Val 60 | Ala | Ile | Ile | Thr |
| Met 65 | Gly | Asp | Glu | Pro | Lys 70 | Ser | Ile | Ile | Arg | Leu 75 | Asp | Ser | Asn | Arg | Gly 80 |
| Pro | Gln | Thr | Val 85 | Arg | Leu | Phe | Ser | Met 90 | Pro | Ala | Glu | Ala | Asp 95 | Ser | Leu |
| Tyr | Phe | Leu | Pro 100 | Arg | Asp | Ile | Gln | Cys 105 | Ser | Ile | Val | Pro | Glu 110 | His | Tyr |
| Leu | Leu | Val 115 | Leu | Lys | Cys | Ser | Asn 120 | Asn | Gly | Leu | Gln | Asn 125 | Ile | Pro | Ser |
| Glu | Lys 130 | Leu | Leu | Lys | Trp | Leu 135 | Glu | Arg | Ile | Asn 140 | Arg | Trp | Ala | Lys | Asn |
| Gln 145 | Asn | Cys | Thr | Leu | Leu 150 | Val | Val | Asn | Pro | Gly 155 | Ser | Asn | Asn | Asp 160 | Lys |
| Leu | Phe | Ser | Leu 165 | Leu | Met | Ser | Glu | Tyr | Arg 170 | Ser | Leu | Tyr | Gly 175 | Leu | Ala |
| Ser | Ile | Arg 180 | Val | Gln | Thr | Asp | Ser 185 | His | Leu | Tyr | Asp | Val 190 | Ala | Phe | Trp |
| Cys | Asn | Glu 195 | Lys | Gly | Val | Ser | Ser 200 | Arg | Gln | Gln | Leu | Thr 205 | Leu | Lys | His |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Gly | Asp | Glu | Trp | His | Leu | Ala | Gln | Gln | Glu | Glu | Thr | Val | Val | Gln |
| | 210 | | | | | 215 | | | | 220 | | | | | |
| Pro | Arg | Ser | Asp | Glu | Lys | Arg | Val | Leu | Ser | His | Ile | Ala | Val | Leu | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ala | Pro | Ala | Leu | Ser | Glu | His | Trp | Ser | Leu | Phe | Asp | Thr | Asn | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Leu | Phe | Asp | Glu | Ala | Arg | Thr | Thr | Gln | Ala | Ala | Thr | Ile | Ile | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Leu | Ile | Gln | Asn | Asn | Gln | Ile | Glu | Thr | Leu | Ala | Arg | His | Ile | His |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Leu | Arg | Arg | Gln | Arg | Gly | Ser | Ala | Leu | Lys | Ile | Val | Val | Arg | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Asn | Thr | Ser | Leu | Arg | Ala | Thr | Asp | Glu | Arg | Leu | Leu | Leu | Gly | Cys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Ala | Asn | Met | Val | Ile | Pro | Trp | Asn | Ala | Pro | Leu | Ser | Arg | Cys | Leu |
| | | | | 325 | | | | 330 | | | | | | 335 | |
| Thr | Leu | Ile | Glu | Ser | Ile | Gln | Gly | Gln | Gln | Phe | Asn | Arg | His | Val | Pro |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Asp | Ile | Ser | Thr | Leu | Leu | Ser | Met | Thr | Gln | Pro | Met | Lys | Leu | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Tyr | Gln | Lys | Trp | Asp | Thr | Phe | Cys | Asp | Ala | Val | Gly | Asn | Met | Met |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Asn | Thr | Leu | Leu | Pro | Ala | Asp | Gly | Lys | Gly | Val | Met | Val | Ala | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Arg | Pro | Val | Pro | Gly | Ile | Arg | Val | Glu | Gln | Ala | Leu | Thr | Leu | Cys | Arg |
| | | | | 405 | | | | 410 | | | | | | 415 | |
| Pro | Asn | Arg | Ile | Gly | Asp | Ile | Met | Thr | Ile | Gly | Asp | Asn | Arg | Leu | Val |
| | | | 420 | | | | 425 | | | | | | 430 | | |
| Leu | Phe | Leu | Ser | Phe | Cys | Arg | Val | Asn | Asp | Leu | Asp | Thr | Ala | Leu | Asn |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| His | Ile | Phe | Pro | Leu | Pro | Thr | Gly | Asp | Ile | Phe | Ser | Asn | Arg | Met | Val |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Trp | Phe | Glu | Asp | Asn | Leu | Ile | Ser | Ala | Glu | Leu | Val | Gln | Met | Arg | Ala |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Leu | Ala | Pro | Glu | Lys | Trp | Ala | Lys | Pro | Leu | Pro | Val | Thr | Ser | Gly | Ala |
| | | | | 485 | | | | 490 | | | | | | 495 | |
| Lys | Pro | Val | Leu | Asn | Ala | Lys | His | Asp | Gly | His | Val | Trp | Arg | Arg | Val |
| | | 500 | | | | | | 505 | | | | | 510 | | |
| Pro | Glu | Pro | Leu | Arg | Leu | Leu | Asp | Glu | Asn | Lys | Glu | Ser | Ala | Pro | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |

<210> 7514

<211> 571

<212> PRT

<213> Enterobacter cloacae

<400> 7514

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| Val | Ala | Leu | Arg | Thr | Ser | Arg | Gln | Thr | Glu | Asn | Met | Thr | Asn | Ser | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Tyr | Thr | Ser | Ser | Ala | Pro | Ser | Pro | Leu | Trp | Gln | Tyr | Trp | Arg | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Gly | Trp | Asn | Phe | Tyr | Phe | Leu | Val | Lys | Phe | Gly | Leu | Leu | Trp | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Tyr | Leu | Asn | Phe | His | Pro | Leu | Leu | Asn | Leu | Val | Phe | Met | Ala | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Leu | Met | Pro | Ile | Pro | Asn | Leu | Arg | Leu | His | Arg | Ile | Arg | His | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Ala | Ile | Pro | Ile | Gly | Phe | Ala | Leu | Phe | Trp | His | Asp | Thr | Trp | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Pro | Glu | Ser | Ile | Met | Ser | Gln | Gly | Ser | Gln | Val | Ala | Gly | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ala | Asp | Tyr | Met | Leu | Asp | Leu | Val | Glu | Arg | Phe | Ile | Asn | Trp | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Ile | Gly | Ala | Val | Phe | Val | Leu | Leu | Val | Ala | Trp | Leu | Phe | Leu | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Trp | Ile | Arg | Val | Thr | Val | Phe | Val | Val | Ala | Ile | Met | Ile | Trp | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Val | Leu | Thr | Leu | Thr | Gly | Pro | Ser | Phe | Ser | Leu | Trp | Pro | Ala | Gly |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gln | Pro | Thr | Thr | Thr | Val | Thr | Thr | Thr | Gly | Gly | Ser | Ala | Ala | Ala | Thr |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Val | Ala | Thr | Ala | Gly | Asp | Thr | Pro | Val | Val | Gly | Asp | Ile | Pro | Ala | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Ala | Pro | Pro | Thr | Ser | Thr | Asn | Leu | Asn | Ala | Trp | Leu | Ser | Ser | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Tyr | Ala | Ala | Glu | Asp | Lys | Arg | Gln | Thr | Lys | Phe | Pro | Asp | Ala | Leu | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Asp | Ala | Gln | Pro | Phe | Glu | Leu | Leu | Val | Ile | Asn | Ile | Cys | Ser | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ser | Trp | Ala | Asp | Val | Asp | Ala | Ala | Gly | Leu | Met | Ser | His | Pro | Leu | Trp |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Ser | His | Phe | Asp | Ile | Gln | Phe | Lys | Asp | Phe | Asn | Ser | Ala | Thr | Ser | Tyr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Gly | Pro | Ala | Ala | Ile | Arg | Leu | Leu | Arg | Ala | Ser | Cys | Gly | Gln | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | His | Lys | Asn | Leu | Tyr | Gln | Pro | Ala | Ala | Asn | Gln | Cys | Tyr | Leu | Phe |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Asn | Leu | Ala | Lys | Leu | Gly | Phe | Thr | Gln | His | Leu | Met | Met | Gly | His |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asn | Gly | Gln | Phe | Gly | Asn | Phe | Leu | Lys | Glu | Val | Arg | Glu | Gln | Gly | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Gln | Ala | Pro | Leu | Met | Asp | Gln | Lys | Gly | Leu | Pro | Val | Thr | Leu | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Phe | Asp | Gly | Ser | Pro | Val | Tyr | Asp | Asp | Thr | Ala | Val | Leu | Gln | Arg |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Trp | Leu | Asp | Thr | Val | Gly | Lys | Glu | Glu | Gly | Thr | Arg | Ser | Ala | Thr | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Tyr | Asn | Thr | Leu | Pro | Leu | His | Asp | Gly | Asn | His | Tyr | Pro | Gly | Val | Ser |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Lys | Thr | Ala | Asp | Tyr | Lys | Ala | Arg | Ala | Gln | Lys | Phe | Phe | Asp | Glu | Leu |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Asn | Ala | Phe | Phe | Asn | Glu | Leu | Glu | Lys | Ser | Gly | Arg | Lys | Val | Met | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Val | Val | Val | Pro | Glu | His | Gly | Gly | Ala | Leu | Lys | Gly | Asp | Arg | Met | Gln |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Val | Ser | Gly | Leu | Arg | Asp | Ile | Pro | Ser | Pro | Ser | Ile | Thr | Asn | Val | Pro |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Gly | Ile | Lys | Phe | Phe | Gly | Met | Lys | Ala | Pro | His | Gln | Gly | Ala | Pro |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Val | Glu | Ile | Thr | Gln | Pro | Ser | Ser | Tyr | Leu | Ala | Ile | Ser | Glu | Leu | Val |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ala | Arg | Ala | Val | Asp | Gly | Lys | Leu | Phe | Val | Glu | Asp | Ser | Val | Asn | Trp |
| | 515 | | | | | | 520 | | | | | 525 | | | |
| Asp | Gln | Leu | Thr | Ser | Gly | Leu | Pro | Gln | Thr | Ala | Glu | Val | Ser | Glu | Asn |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Ala | Asn | Ala | Val | Val | Ile | Gln | Tyr | Gln | Asn | Lys | Pro | Tyr | Val | Arg | Leu |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Asn | Ala | Gly | Asp | Trp | Val | Pro | Tyr | Pro | Gln | | | | | | |
| | | | 565 | | | | | | 570 | | | | | | |

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 <211> 338
 <212> PRT
 <213> Enterobacter cloacae

<400> 7515

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Ser Ser Leu Tyr Trp Pro Asn Gly Arg Ser Glu Cys Arg Gly Asp His
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Cys Val Lys Asp Asn Thr Ile Pro Leu Thr Leu Ile Gly Ile Leu Ala
20
Asp Gly Glu Phe His Ser Gly Glu Gln Leu Gly Glu Gln Leu Gly Met
35      40      45
Ser Arg Ala Ala Ile Asn Lys His Ile Gln Thr Leu Arg Asp Trp Gly
50      55      60
Val Asp Val Phe Thr Val Pro Gly Lys Gly Tyr Ser Leu Pro Glu Pro
65      70      75      80
Ile Gln Leu Leu Asn Glu Glu Ile Ile Arg Ser Gln Ile Gly His Gly
85      90      95
Asn Val Ala Val Leu Pro Val Ile Asp Ser Thr Asn Gln Tyr Leu Leu
100      105      110
Asp Arg Leu Ser Glu Leu Lys Ser Gly Asp Ala Cys Val Ala Glu Tyr
115      120      125
Gln Gln Ala Gly Arg Gly Arg Arg Gly Arg Lys Trp Phe Ser Pro Phe
130      135      140
Gly Ala Asn Leu Tyr Leu Ser Met Tyr Trp Arg Leu Ala Gln Gly Pro
145      150      155      160
Ala Ala Ala Ile Gly Leu Ser Leu Val Ile Gly Ile Val Met Ala Glu
165      170      175
Val Leu His Asp Leu Gly Ala Asp Gln Val Arg Val Lys Trp Pro Asn
180      185      190
Asp Leu Tyr Leu Asn Asp Arg Lys Leu Ala Gly Ile Leu Val Glu Leu
195      200      205
Thr Gly Lys Thr Gly Asp Ala Ala Gln Ile Val Ile Gly Ala Gly Leu
210      215      220
Asn Met Val Met Arg Asn Val Gln Asn Asp Val Val Asn Gln Ala Trp
225      230      235      240
Thr Asn Leu Gln Glu Ala Gly Ile Thr Ile Asp Arg Asn Thr Leu Ala
245      250      255
Val Arg Met Ile Asn Glu Leu Arg Ser Ser Leu Thr Leu Phe Glu Gln
260      265      270
Glu Gly Leu Ala Pro Phe Leu Ser Arg Trp Glu Lys Leu Asp Asn Phe
275      280      285
Ile Asn Arg Pro Val Lys Leu Leu Ile Gly Asp Lys Glu Ile Tyr Gly
290      295      300
Thr Ser Arg Gly Ile Asp Ala Gln Gly Ala Leu Leu Leu Glu Gln Asp
305      310      315      320
Gly Val Ile Lys Pro Trp Val Gly Gly Glu Ile Ser Leu Arg Ser Ala
325      330      335
Glu

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<210> 7516
 <211> 881
 <212> PRT
 <213> Enterobacter cloacae

<400> 7516

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Leu Leu Ile Pro Pro Val Ser Ser Arg Leu Ser Glu Arg Tyr Arg His
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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| | | | | 85 | | | | | 90 | | | | | 95 | |
| Trp | Leu | Leu | Ala | Thr | Ser | Thr | Gly | Ala | Glu | Lys | Lys | Thr | Ser | Arg | Trp |
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| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Gln | Lys | Glu | Leu | Gly | His | Leu | His | Pro | Gly | Leu | Arg | Arg | Phe | Ile |
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| Leu | Gly | Val | Val | Val | Val | Phe | Ser | Leu | Ile | Leu | Ala | Leu | Val | Cys | Ile |
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| Thr | Gln | Pro | Phe | Asn | Pro | Leu | Ala | Gln | Phe | Thr | Phe | Leu | Ile | Leu | Leu |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Trp | Gly | Val | Ala | Leu | Leu | Val | Arg | Arg | Ile | Pro | Gly | Arg | Phe | Ser | Ala |
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| Trp | Arg | Tyr | Thr | Ser | Thr | Leu | Asn | Trp | Asp | Asp | Pro | Val | Ser | Leu | Val |
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| Cys | Gly | Leu | Val | Leu | Leu | Phe | Ala | Glu | Thr | Tyr | Ala | Trp | Ile | Val | Leu |
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| Val | Leu | Gly | Tyr | Phe | Gln | Val | Ile | Trp | Pro | Leu | Asn | Arg | Gln | Pro | Val |
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| Pro | Leu | Pro | Lys | Asp | Thr | Thr | Gln | Trp | Pro | Thr | Val | Asp | Leu | Phe | Val |
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| Pro | Thr | Tyr | Asn | Glu | Asp | Leu | Ser | Val | Val | Lys | Asn | Thr | Ile | Tyr | Ala |
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| Ile | Asn | Asn | Ala | Leu | Lys | Tyr | Ala | Lys | Gly | Glu | Phe | Val | Ser | Ile | Phe |
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<212> PRT
<213> Enterobacter cloacae
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| Leu | Thr | Leu | Ser | Leu | Gly | Leu | Ala | Leu | Met | Pro | Leu | Ala | Gln | Ala | Ala |
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| Asn | Ser | Pro | Gln | Gln | Arg | Gln | Leu | Leu | Glu | Gln | Val | Arg | Leu | Gly | Glu |
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| | | | | | | | | | | | | | | | |
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| Leu 65 | Ile | Asp | Pro | Asn | Asn 70 | Pro | Asp | Val | Ile | Ala 75 | Ala | Arg | Phe | Arg | Tyr 80 |
| Leu | Leu | Arg | Gln | Gly 85 | Asp | Thr | Ala | Gly | Ala 90 | Gln | Lys | Glu | Leu | Asp 95 | Arg |
| Leu | Lys | Gly | Met 100 | Ala | Ala | Asp | Ser | Ser 105 | Ala | Tyr | Gln | Ser | Ser 110 | Arg | Thr |
| Thr | Met | Leu 115 | Leu | Ser | Thr | Pro | Asp 120 | Gly | Arg | Gln | Ala | Leu 125 | Gln | Gln | Ala |
| Arg | Leu 130 | Leu | Ala | Thr | Thr | Gly 135 | His | Thr | Gln | Glu | Ala 140 | Ile | Ala | Ala | Tyr |
| Asp 145 | Lys | Leu | Phe | Asp | Gly 150 | Lys | Pro | Pro | Ser | Gly 155 | Asp | Ile | Ala | Thr | Glu 160 |
| Tyr | Trp | Asn | Val 165 | Val | Ala | Lys | Glu | Pro | Ala 170 | Arg | Arg | Asn | Leu 175 | Ala | Ile |
| Asn | Gln | Leu 180 | Lys | Lys | Ile | Asn | Ala | Ser 185 | Ser | Pro | Gly | Asn 190 | Val | Pro | Leu |
| Gln | Ser | Ser 195 | Leu | Ala | Gln | Leu | Leu 200 | Phe | Gln | Ser | Gly 205 | Arg | Arg | Asp | Glu |
| Gly | Phe 210 | Ala | Val | Leu | Gln | Glu 215 | Met | Ala | Lys | Ser | Asn 220 | Asn | Gly | Arg | Ser |
| Gln 225 | Ala | Ser | Asp | Met 230 | Trp | Tyr | Gln | Gln | Ile | Lys 235 | Asp | Gln | Pro | Val | Ser 240 |
| Ser | Ala | Ser | Val 245 | Thr | Ala | Leu | Gln | Gln | Tyr 250 | Leu | Ser | Val | Phe | Ser 255 | Asp |
| Gly | Asp | Asn 260 | Val | Thr | Ala | Ala | Arg | Thr 265 | Gln | Leu | Glu | Ala 270 | Gln | Gln | Lys |
| Gln | Leu 275 | Ala | Asp | Pro | Ala | Phe | Arg | Ala 280 | Lys | Ala | Glu | Gly 285 | Leu | Ala | Ala |
| Val 290 | Asp | Ala | Gly | Gln | Gly | Ser 295 | Lys | Ala | Val | Thr | Glu 300 | Leu | Gln | Lys | Ala |
| Val 305 | Ser | Ala | Asn | His 310 | Ala | Asp | Ser | Glu | Ala 315 | Val | Gly | Ala | Leu | Gly | Gln 320 |
| Ala | Tyr | Ser | Gln 325 | Lys | Gly | Asp | Arg | Ala 330 | Arg | Ala | Val | Ala | Gln | Phe 335 | Glu |
| Lys | Ala | Ile | Ala 340 | Leu | Asp | Pro | Gln | Ser 345 | Asp | Asn | Arg | Gly | Lys 350 | Trp | Asp |
| Ser | Leu 355 | Leu | Lys | Val | Asn | Arg | Tyr 360 | Trp | Leu | Leu | Ile | Gln 365 | Gln | Gly | Asp |
| Asn 370 | Ala | Leu | Lys | Ala | Asn 375 | Asn | Thr | Ala | Gln | Ala | Glu 380 | Arg | Tyr | Tyr | Gln |
| Gln 385 | Ala | Arg | Asn | Ile 390 | Asp | Asn | Thr | Asp | Ser | Tyr 395 | Ala | Val | Leu | Gly | Leu 400 |
| Gly | Asp | Ala | Ala 405 | Ala | Ala | Arg | Lys | Asp | Asn 410 | Asp | Ala | Ala | Glu | Arg 415 | Tyr |
| Tyr | Arg | Gln 420 | Ala | Leu | Arg | Met | Asp 425 | Ser | Gly | Asn | Ser | Asn 430 | Ala | Val | Arg |
| Gly | Leu 435 | Ala | Asn | Ile | Tyr | Arg | Ala 440 | Gln | Ser | Pro | Glu | Lys 445 | Ala | Thr | Gln |
| Phe 450 | Ile | Gln | Ser | Leu | Ser 455 | Ala | Ser | Gln | Arg | Arg | Ser 460 | Ile | Asp | Asp | Ile |
| Glu 465 | Arg | Ser | Leu | Thr 470 | Asn | Glu | Gln | Leu | Ser | Ala 475 | Gln | Ala | Glu | Gln | Leu 480 |
| Glu | Ser | Glu | Gly 485 | Lys | Tyr | Ala | Gln | Ala 490 | Ala | Glu | Ile | Gln | Arg | Arg 495 | Arg |
| Leu | Ala | Leu 500 | Ser | Pro | Gly | Asp | Val 505 | Trp | Ile | Thr | Tyr | Arg | Leu 510 | Ser | Arg |
| Asp | Leu 515 | Tyr | Ser | Ala | Gly | Gln | Arg 520 | Ser | Gln | Ala | Asp 525 | Asn | Leu | Met | Arg |
| Gln | Leu 530 | Ala | Ser | Gln | Lys 535 | Pro | Gly | Asp | Pro | Asp | Gln 540 | Val | Tyr | Ala | Ser |

| | | | | | | | | | | | | | | | |
|-----|------|-----|-----|-----|-----|------|------|-----|-----|-----|------|------|-----|-----|-----|
| Gly | Leu | Tyr | Leu | Ser | Gly | Asn | Asp | Gln | Asp | Arg | Ala | Ala | Leu | Ala | His |
| 545 | | | | | 550 | | | | 555 | | | | | | 560 |
| Leu | Asn | Thr | Leu | Pro | Arg | Asp | Lys | Trp | Asn | Gly | Asn | Ile | Gln | Ala | Leu |
| | | | | 565 | | | | | 570 | | | | | | 575 |
| Ala | Asp | Arg | Leu | Gln | Ser | Asn | Gln | Val | Leu | Glu | Thr | Ala | Asn | Arg | Leu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Arg | Asp | Ser | Gly | Lys | Glu | Gln | Glu | Ala | Glu | Thr | Leu | Leu | Arg | Gln | Gln |
| | 595 | | | | | | 600 | | | | | 605 | | | |
| Pro | Pro | Ser | Thr | Arg | Ile | Asp | Leu | Thr | Leu | Ala | Asp | Trp | Ala | Glu | Gln |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Arg | Gly | Asp | His | Glu | Ala | Ala | Lys | Thr | Ala | Tyr | Asn | Thr | Ile | Leu | Gln |
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| Arg | Glu | Pro | Gln | Asn | Glu | Asp | Ala | Ile | Leu | Gly | Leu | Thr | Glu | Val | Ser |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Leu | Ala | Gln | Gly | Asn | Lys | Asp | Ala | Ala | Arg | Ala | Ala | Leu | Ala | Lys | Leu |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Pro | Ala | Ala | Gln | Asn | Gly | Glu | Pro | Leu | Ser | Ile | Asn | Met | Gln | Arg | Arg |
| | | | 675 | | | | 680 | | | | | 685 | | | |
| Leu | Ala | Met | Ala | Gln | Ala | Gly | Leu | Gly | Asp | Pro | Ala | Ala | Ala | Glu | Lys |
| | 690 | | | | | 695 | | | | 700 | | | | | |
| Thr | Phe | Asn | Ala | Ile | Leu | Pro | Gln | Ala | Lys | Ser | Gln | Pro | Pro | Ser | Met |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Glu | Ser | Ala | Leu | Val | Met | Arg | Asp | Ala | Ala | Arg | Phe | Gln | Ala | Gln | Asn |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Gly | Gln | Pro | Gln | Gln | Ala | Leu | Asp | Thr | Trp | Lys | Asp | Ala | Met | Val | Ser |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Ser | Gly | Ile | Thr | Thr | Thr | Arg | Pro | Thr | Asp | Asn | Asp | Ser | Phe | Thr | Arg |
| | 755 | | | | | | 760 | | | | | 765 | | | |
| Leu | Thr | Arg | Asn | Asp | Glu | Lys | Asp | Asp | Trp | Leu | Lys | Arg | Gly | Val | Arg |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Ser | Asp | Ala | Gly | Asp | Leu | Tyr | Arg | Gln | Gln | Asp | Leu | Asn | Val | Thr | Leu |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Gln | His | Asp | Tyr | Trp | Gly | Ser | Ser | Gly | Thr | Gly | Gly | Tyr | Ser | Asp | Leu |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Lys | Ala | His | Thr | Thr | Met | Leu | Gln | Val | Asp | Ala | Pro | Leu | Ser | Asp | Gly |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Arg | Met | Phe | Phe | Arg | Ser | Asp | Leu | Val | Asn | Met | Asn | Ala | Gly | Ser | Phe |
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| Asp | Thr | Asp | Asn | Gly | Thr | Tyr | Asp | Pro | Thr | Trp | Gly | Thr | Cys | Ala | Glu |
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| Thr | Pro | Cys | His | Gly | Ser | Thr | Asn | Gln | Ser | Ala | Asn | Gly | Ala | Ser | Val |
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| Ala | Val | Gly | Trp | Gln | Asn | Lys | Thr | Trp | Ala | Trp | Asp | Ile | Gly | Thr | Thr |
| | | | | 885 | | | | | 890 | | | | | 895 | |
| Pro | Met | Gly | Phe | Asp | Val | Val | Asp | Val | Val | Gly | Ser | Leu | Ser | Tyr | Ser |
| | | | 900 | | | | | 905 | | | | | 910 | | |
| Asn | Asp | Leu | Gly | Pro | Ile | Gly | Tyr | Thr | Leu | Asn | Ala | His | Arg | Arg | Pro |
| | 915 | | | | | | 920 | | | | | 925 | | | |
| Ile | Ser | Ser | Ser | Val | Leu | Ala | Phe | Ala | Gly | Gln | Lys | Asp | Pro | Asn | Thr |
| | 930 | | | | | 935 | | | | | 940 | | | | |
| Asp | Thr | Thr | Trp | Gly | Gly | Val | Arg | Ala | Thr | Gly | Gly | Gly | Val | Ser | Met |
| 945 | | | | | 950 | | | | | 955 | | | | | 960 |
| Ser | Tyr | Asp | Lys | Gly | Glu | Ala | Asn | Gly | Ile | Trp | Ser | Ser | Leu | Ser | Ala |
| | | | | 965 | | | | | 970 | | | | | 975 | |
| Asp | Ser | Leu | Thr | Gly | Lys | Asn | Val | Glu | Asp | Asn | Trp | Arg | Val | Arg | Trp |
| | | | 980 | | | | | 985 | | | | | 990 | | |
| Met | Thr | Gly | Tyr | Tyr | Tyr | Lys | Leu | Ile | Asn | Gln | Asn | Asn | Glu | Arg | Leu |
| | | | 995 | | | | 1000 | | | | | 1005 | | | |
| Thr | Val | Gly | Val | Ser | Asn | Met | Leu | Trp | His | Tyr | Asp | Lys | Asp | Leu | Ser |
| | 1010 | | | | | 1015 | | | | | 1020 | | | | |
| Gly | Tyr | Ser | Leu | Gly | Gln | Gly | Gly | Tyr | Tyr | Ser | Pro | Gln | Glu | Tyr | Val |

| | | | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
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| Ser | Phe | Ala | Leu | Pro | Val | Asn | Trp | Arg | Lys | Arg | Thr | Glu | Asn | Trp | Ser |
| | | | | 1045 | | | | | 1050 | | | | | 1055 | |
| Trp | Glu | Leu | Gly | Gly | Ser | Val | Ser | Trp | Ser | His | Ser | Lys | Thr | Lys | Asp |
| | | | 1060 | | | | | 1065 | | | | | 1070 | | |
| Val | Met | Arg | Tyr | Pro | Leu | Gln | Gly | Leu | Ile | Pro | Asp | Asn | Glu | Pro | Gly |
| | | 1075 | | | | | 1080 | | | | 1085 | | | | |
| Arg | Tyr | Thr | Asp | Lys | Gly | Val | Met | Glu | Thr | Gly | Ser | Ser | Ser | Ser | Gly |
| | 1090 | | | | | 1095 | | | | 1100 | | | | | |
| Thr | Gly | Tyr | Thr | Ala | Arg | Ala | Ile | Val | Glu | Arg | Val | Thr | Ser | Asn | |
| 1105 | | | | 1110 | | | | | 1115 | | | | | 1120 | |
| Trp | Phe | Val | Gly | Leu | Gly | Val | Asp | Ile | Gln | Glu | Ala | Lys | Asp | Tyr | Thr |
| | | | 1125 | | | | | 1130 | | | | | 1135 | | |
| Pro | Ser | His | Ala | Leu | Leu | Tyr | Val | Arg | Tyr | Ser | Ala | Ala | Gly | Trp | Gln |
| | | | 1140 | | | | 1145 | | | | | 1150 | | | |
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<213> Enterobacter cloacae

<400> 7518

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| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Val | Ser | Arg | Ser | Leu | Thr | Ile | Lys | Gln | Met | Ala | Met | Val | Ser | Ala |
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| Val | Thr | Met | Leu | Phe | Val | Phe | Ile | Phe | Cys | Val | Ile | Leu | Leu | Phe | His |
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| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ile | Pro | Glu | Ala | Glu | Ser | Ile | Leu | Lys | Arg | Ile | Gln | Pro | Ala | Gly | Ile |
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| Val | Ser | Arg | Ala | Asp | Val | Val | Leu | Pro | Asn | Gln | Phe | Gln | Ala | Leu | Arg |
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| Met | Ser | Phe | Ile | Pro | Glu | Arg | Ser | Val | Pro | Met | Met | Val | Met | Arg | Leu |
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| Phe | Glu | Leu | Pro | Val | Gln | Ile | Ser | Leu | Pro | Leu | Tyr | Ser | Leu | Glu | Arg |
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| Pro | Ala | Asn | Pro | Gln | Pro | Leu | Ala | Tyr | Leu | Val | Leu | Gln | Ala | Asp | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Tyr | Arg | Met | Tyr | Lys | Phe | Val | Met | Ser | Trp | Val | Ala | Thr | Leu | Val | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Tyr | Leu | Leu | Leu | Thr | Leu | Met | Leu | Ser | Val | Ala | Leu | Thr | Trp | Cys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ile | Asn | Arg | Leu | Ile | Val | His | Pro | Leu | Arg | Arg | Ile | Ala | Arg | Glu | Leu |
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| Asn | Asp | Leu | Ser | Pro | Gln | Glu | His | Met | Gly | His | Gln | Leu | Pro | Leu | Pro |
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| Arg | Leu | His | His | Asp | Asp | Glu | Ile | Gly | Met | Leu | Val | Arg | Ser | Tyr | Asn |
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| Ile | Asn | Gln | Gln | Arg | Val | Leu | Arg | Gln | Gln | Glu | Glu | Leu | Ser | Ser | Asn |
| | | 260 | | | | | 265 | | | | | 270 | | | |
| Ala | Thr | Arg | Phe | Pro | Val | Ser | Asp | Leu | Pro | Asn | Lys | Ala | Phe | Leu | Met |

| | | |
|---|-----|-----|
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| Ala Leu Leu Glu Gln Thr Val Ala Arg Gln Gln Thr Thr Ala Leu Met | | |
| 290 | 295 | 300 |
| Val Ile Ala Cys Glu Thr Leu Gln Asp Thr Ala Gly Val Leu Lys Glu | | |
| 305 | 310 | 315 |
| Ser Gln Arg Glu Met Leu Leu Leu Thr Leu Val Glu Lys Val Lys Ser | | |
| 325 | 330 | 335 |
| Val Leu Ala Pro Arg Met Val Leu Thr Gln Val Ser Gly Tyr Asp Leu | | |
| 340 | 345 | 350 |
| Val Val Ile Ala His Gly Val Lys Glu Pro Trp His Ala Ile Thr Leu | | |
| 355 | 360 | 365 |
| Gly Gln Gln Val Leu Thr Val Ile Asn Glu Arg Leu Pro Ile Gln Gly | | |
| 370 | 375 | 380 |
| Ile Gln Leu Arg Pro Ser Ala Ser Ile Gly Ile Ala Met Tyr Tyr Gly | | |
| 385 | 390 | 395 |
| Gly Leu Thr Ala Glu Gln Leu Tyr Arg Arg Ala Phe Ser Ala Ala Phe | | |
| 405 | 410 | 415 |
| Thr Ala Arg Arg Lys Gly Lys Asn Gln Ile Gln Phe Phe Asp Pro Glu | | |
| 420 | 425 | 430 |
| Gln Met Glu Lys Ala Gln Gln Arg Leu Thr Glu Glu Ser Asp Ile Leu | | |
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| Thr Ala Met Asp Asn Arg Gln Phe Ala Leu Trp Leu Gln Pro Gln Val | | |
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| Asn Leu Arg Thr Gly Glu Val Thr Ser Ala Glu Ala Leu Leu Arg Met | | |
| 465 | 470 | 475 |
| Gln Gln Pro Asp Gly Thr Trp Glu Leu Pro Glu Gly Met Ile Glu Arg | | |
| 485 | 490 | 495 |
| Ile Glu Ser Cys Gly Leu Met Val Thr Val Gly Tyr Trp Val Leu Glu | | |
| 500 | 505 | 510 |
| Glu Thr Cys Arg Gln Leu Ala Ala Trp Gln Gln Arg Gly Ile Thr Leu | | |
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| Pro Leu Ser Val Asn Leu Ser Ala Leu Gln Leu Met His Pro Thr Met | | |
| 530 | 535 | 540 |
| Val Pro Glu Met Leu Glu Leu Ile His Arg Tyr Arg Ile Gln Pro His | | |
| 545 | 550 | 555 |
| Thr Leu Ile Leu Glu Val Thr Glu Ser Arg Cys Ile Asp Asn Pro Asp | | |
| 565 | 570 | 575 |
| Asp Ala Val Ala Ile Leu Lys Pro Leu Arg Asn Ala Gly Ile Arg Ile | | |
| 580 | 585 | 590 |
| Ala Leu Asp Asp Phe Gly Met Gly Tyr Ser Gly Leu Arg Gln Leu Gln | | |
| 595 | 600 | 605 |
| His Met Lys Thr Leu Pro Val Asp Val Leu Lys Ile Asp Lys Thr Phe | | |
| 610 | 615 | 620 |
| Val Glu Gly Leu Pro Glu Asp Cys Ser Leu Val Gln Ala Ile Ile Gln | | |
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| Met Ala His Ser Leu Asn Leu His Val Ile Ala Glu Gly Ile Glu Thr | | |
| 645 | 650 | 655 |
| Asp Ala Gln Arg Glu Trp Leu Ala Ala Ala Gly Val Glu Ser Gly Gln | | |
| 660 | 665 | 670 |
| Gly Phe Leu Phe Asp Arg Ala Val Pro Thr Asp Ile Phe Glu Gln Arg | | |
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| Tyr Leu Ala Asp Ala Gly Asn Asn Ala Lys Val | | |
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<400> 7519

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| 1 | | | | 5 | | | | | 10 | | | | | 15 |
| Ser | Leu | Phe | Lys | Ser | Leu | Tyr | Phe | Gln | Val | Leu | Thr | Ala | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | |
| Gly | Ile | Leu | Leu | Gly | His | Tyr | Tyr | Pro | Glu | Leu | Gly | Ala | Gln | Met |
| | | 35 | | | | | 40 | | | | | 45 | | Lys |
| Pro | Leu | Gly | Asp | Ala | Phe | Val | Lys | Leu | Ile | Lys | Met | Ile | Ile | Ala |
| | | 50 | | | | 55 | | | | | 60 | | | Pro |
| Val | Ile | Phe | Cys | Thr | Val | Val | Thr | Gly | Ile | Ala | Gly | Met | Glu | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Lys | Ala | Val | Gly | Arg | Thr | Gly | Ala | Val | Ala | Leu | Leu | Tyr | Phe | Glu |
| | | | | 85 | | | | 90 | | | | | | 95 |
| Val | Ser | Thr | Ile | Ala | Leu | Ile | Ile | Gly | Leu | Ile | Ile | Val | Asn | Val |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Gln | Pro | Gly | Ala | Gly | Met | Asn | Val | Asp | Pro | Ala | Thr | Leu | Asp | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | Lys |
| Ala | Val | Ala | Val | Tyr | Ala | Glu | Gln | Ala | Lys | Asp | Gln | Gly | Ile | Val |
| | | 130 | | | | 135 | | | | | 140 | | | Ala |
| Phe | Leu | Leu | Asp | Val | Ile | Pro | Ser | Ser | Val | Ile | Gly | Ala | Phe | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Gly | Asn | Ile | Leu | Gln | Val | Leu | Leu | Phe | Ala | Val | Leu | Phe | Gly | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Leu | His | Gln | Gln | Gly | Ala | Glu | Gly | Ser | Ala | His | Ala | Arg | | |
| | | | 180 | | | | | 185 | | | | | | |

<210> 7520

<211> 392

<212> PRT

<213> Enterobacter cloacae

<400> 7520

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Ala | Arg | His | Gln | Thr | Ser | Glu | Glu | Ala | Ile | Arg | Lys | Asp | Gly |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Leu | Phe | Ala | Phe | Leu | His | Leu | Leu | Pro | Phe | His | Lys | Gln | Ile | Thr | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Pro | Ile | Tyr | Thr | Val | Asn | Tyr | Pro | Gly | Phe | Cys | Ile | Arg | Ile | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Met | Asn | His | Ser | Leu | Lys | Pro | Trp | Asn | Thr | Phe | Gly | Ile | Gln | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Ala | Asn | Gln | Ile | Val | Arg | Ala | Glu | Ser | Ala | Gln | Gln | Leu | Leu | Asn |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Trp | Gln | Asn | Ala | Thr | Gly | Asn | Gly | Glu | Pro | Val | Leu | Ile | Leu | Gly |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Glu | Gly | Ser | Asn | Val | Leu | Phe | Leu | Asp | Asp | Phe | Ala | Gly | Thr | Val | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Asn | Arg | Ile | Met | Gly | Ile | Glu | Cys | Lys | Glu | Ser | Ala | Asp | Ser | Trp |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| His | Leu | His | Val | Gly | Ala | Gly | Glu | Asn | Trp | His | His | Leu | Val | Gln | Tyr |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Thr | Leu | Glu | Lys | Gly | Met | Pro | Gly | Leu | Glu | Asn | Leu | Ala | Leu | Ile | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Cys | Ala | Gly | Ser | Ser | Pro | Ile | Gln | Asn | Ile | Gly | Ala | Tyr | Gly | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Leu | Lys | His | Val | Cys | Glu | Tyr | Val | Asp | Cys | Ile | Glu | Leu | Ala | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Thr | Ala | Lys | Arg | Leu | Thr | Ala | Glu | Gln | Cys | Arg | Phe | Gly | Tyr | Arg |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asp | Ser | Ile | Phe | Lys | His | Asp | Tyr | Gln | Asp | Arg | Phe | Val | Ile | Val | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Gly | Leu | Arg | Leu | Ala | Lys | Ala | Trp | Lys | Pro | Val | Leu | Thr | Tyr | Gly |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Asp | Leu | Thr | Arg | Leu | Asp | Pro | Ala | Thr | Val | Thr | Pro | Arg | Glu | Val | Phe |


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<210> 7521
<211> 261
<212> PRT
<213> Enterobacter cloacae
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[illegible]

<210> 7522

<211> 847

<212> PRT

<213> Enterobacter cloacae

<400> 7522

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ser | Gly | His | Leu | Leu | His | Trp | Phe | Pro | Gly | Ser | Cys | Arg | Ser | Phe |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Arg | Val | Asp | Leu | Ser | Glu | Met | Lys | Arg | Ser | Arg | Arg | Thr | Arg | Leu | Trp |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Asn | Asn | Asp | Asp | Asn | Ala | Met | Lys | Thr | Lys | Leu | Ser | Trp | Leu | Cys |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Ala | Val | Ala | Met | Gly | Met | Ser | Ala | Leu | Pro | Ala | Thr | Val | Ala | Asn | Ala |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Ala | Pro | Asp | Asn | Ala | Ala | Thr | Thr | Pro | Ala | Pro | Thr | Val | Pro | Val | Val |
| 65 | | | 70 | | | | | | 75 | | | | | 80 | |
| Ala | Gln | Ala | Thr | Asp | Pro | Val | Val | Thr | Ala | Ala | Pro | Gly | Gln | Thr | Glu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Val | Val | Pro | Asn | Gln | Pro | Thr | Thr | Gly | Asn | Thr | Leu | Pro | Gly | Asp |
| | 100 | | | | | | 105 | | | | | 110 | | | |
| Asn | Pro | Val | Val | Gly | Gln | Val | Met | Pro | Gly | Val | Pro | Gly | Ala | Ser | Ala |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Pro | Val | Val | Ala | Glu | Asn | Thr | Pro | Ser | Arg | Asp | Val | Lys | Leu | Thr | Phe |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Ala | Gln | Ile | Ala | Pro | Pro | Pro | Gly | Ser | Met | Val | Leu | Arg | Gly | Ile | Asn |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Pro | Asn | Gly | Gly | Ile | Glu | Phe | Gly | Met | Arg | Ser | Asp | Glu | Val | Val | Ser |
| | | | 165 | | | | 170 | | | | | | 175 | | |
| Lys | Ala | Met | Leu | Asn | Leu | Glu | Tyr | Thr | Pro | Ser | Pro | Ser | Leu | Leu | Pro |
| | 180 | | | | | | 185 | | | | | 190 | | | |
| Val | Gln | Ser | Gln | Leu | Lys | Val | Tyr | Leu | Asn | Asp | Glu | Leu | Met | Asp | Val |
| | 195 | | | | | 200 | | | | | 205 | | | | |
| Leu | Pro | Val | Thr | Lys | Glu | Gln | Leu | Gly | Lys | Lys | Thr | Leu | Ala | Gln | Val |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Pro | Ile | Asn | Pro | Leu | Phe | Ile | Thr | Asp | Phe | Asn | Arg | Val | Arg | Leu | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Phe | Val | Gly | His | Tyr | Arg | Asp | Val | Cys | Glu | Asn | Pro | Ala | Ser | Ser | Thr |
| | | | 245 | | | | 250 | | | | | | 255 | | |
| Leu | Trp | Leu | Asp | Val | Gly | Arg | Asn | Ser | Ser | Leu | Gln | Met | Thr | Tyr | Gln |
| | | 260 | | | | | 265 | | | | | 270 | | | |
| Pro | Leu | Ala | Leu | Lys | Asn | Asp | Leu | Ser | Ala | Phe | Pro | Val | Pro | Phe | Phe |
| | 275 | | | | 280 | | | | | | 285 | | | | |
| Asp | Pro | Arg | Asp | Asn | Arg | Pro | Leu | Asn | Leu | Pro | Met | Val | Phe | Ala | Gly |
| | 290 | | | 295 | | | | | | 300 | | | | | |
| Ser | Pro | Asp | Val | Thr | Glu | Gln | Leu | Ala | Ala | Ser | Ile | Val | Ala | Ser | Trp |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Phe | Gly | Ser | Arg | Ser | Gly | Trp | Arg | Gly | Gln | Ser | Phe | Pro | Val | Met | Tyr |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Asp | Lys | Met | Pro | Asp | Lys | Asn | Ala | Ile | Val | Phe | Ala | Thr | Asn | Ala | Lys |
| | | 340 | | | | | 345 | | | | | 350 | | | |
| Arg | Pro | Ala | Phe | Leu | Arg | Asp | His | Pro | Glu | Val | Lys | Ala | Pro | Thr | Ile |
| | 355 | | | | 360 | | | | | | 365 | | | | |
| Glu | Met | Ile | Ser | His | Pro | Asp | Asn | Pro | Tyr | Val | Lys | Leu | Leu | Val | Ile |
| | 370 | | | 375 | | | | | | 380 | | | | | |
| Phe | Gly | Arg | Asp | Asp | Lys | Asp | Leu | Val | Gln | Ala | Ala | Lys | Gly | Ile | Ala |
| 385 | | | | 390 | | | | | 395 | | | | | 400 | |
| Gln | Gly | Asn | Ile | Leu | Phe | Arg | Gly | Asn | Ser | Val | Val | Val | Asp | Glu | Val |
| | | | 405 | | | | | 410 | | | | | 415 | | |
| Lys | Pro | Leu | Leu | Ala | Arg | Lys | Pro | Tyr | Asp | Ala | Pro | Asn | Trp | Val | Arg |
| | | 420 | | | | | 425 | | | | | 430 | | | |
| Thr | Asp | Arg | Ala | Ile | Thr | Phe | Gly | Glu | Leu | Lys | Thr | Tyr | Glu | Glu | Gln |


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<210> 7523
<211> 371
<212> PRT
<213> Enterobacter cloacae
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<400> 7523
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Ala Ala Ala Asn Leu His Ala Ala Cys Arg Trp Pro Ala Trp Glu Thr
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<210> 7524
<211> 83
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Ala | Gly | Arg | Leu | Ala | Ala | Ser | Glu | Ser | Tyr | Asp | Phe | Thr | Gln | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Glu | Lys | Arg | Met | Gln | Asn | Asn | Glu | Pro | Ala | Thr | Pro | Val | Asp | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Gly | Tyr | Thr | Phe | Gln | Asn | Asp | Phe | Leu | Ala | Leu | Thr | Gln | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Ser | Leu | Pro | Glu | Ile | Asp | Tyr | Thr | Asp | Ile | Ser | Gln | Arg | Glu | Gln |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Ala | Ala | Ala | Ile | Lys | Arg | Trp | Pro | Leu | Leu | Ala | Glu | Phe | Ala | Gln |

65
Gln Gln

70

75

80

<210> 7525
<211> 116
<212> PRT
<213> Enterobacter cloacae

<400> 7525
Arg Asn Leu Arg Ser Asp Met Gly Tyr Leu Cys Arg Asn Ala Met Ser
1 5 10 15
Arg Gln His Glu Pro Val Gly Gln Arg Gln Arg Gly Arg Arg Leu
20 25 30
Ala Glu Gln Asn Leu Gly Val Gly Tyr Arg Tyr Asn Ala Asp Gly Leu
35 40 45
Arg Arg Gly Arg Cys Gly Gly Gln Pro Glu Leu Gln Gln Arg Phe Arg
50 55 60
Ala Asp Trp Leu His Pro Glu Arg Pro Ser Pro Ser Asp Phe Gln Leu
65 70 75 80
Gly Ala Gly Leu Arg Arg Ala Lys Arg Ser Gln Tyr Arg His His Leu
85 90 95
Gly Arg Arg Ala Cys His Arg Trp Arg Arg Glu His Glu Leu Arg Gln
100 105 110
Arg Arg Ser
115

<210> 7526
<211> 340
<212> PRT
<213> Enterobacter cloacae

<400> 7526
Val Arg Cys Met Ser Pro Thr Ile Tyr Asp Ile Ala Arg Val Ala Gly
1 5 10 15
Val Ser Lys Ser Thr Val Ser Arg Val Leu Asn Lys Gln Thr Asn Ile
20 25 30
Ser Pro Glu Ala Arg Glu Lys Val Leu Lys Ala Ile Glu Glu Leu Asn
35 40 45
Tyr Gln Pro Asn Lys Leu Ala Arg Ala Leu Thr Ser Ser Gly Phe Asp
50 55 60
Ala Ile Met Val Ile Ser Thr Arg Ser Thr Lys Thr Thr Ala Gly Asn
65 70 75 80
Pro Phe Phe Ser Asp Val Leu His Ala Ile Thr Ala Lys Ala Glu Glu
85 90 95
Glu Gly Phe Asp Val Ile Leu Gln Thr Ser Lys Ser Ser Glu Asp Asp
100 105 110
Leu Gln Lys Cys Val Gly Lys Ile Lys Gln Lys Met Ile Lys Gly Ile
115 120 125
Ile Met Leu Ser Ser Pro Ala Asn Glu Ser Phe Phe Ala Thr Leu Asp
130 135 140
Glu Tyr Gly Val Pro Val Val Val Ile Gly Lys Val Glu Gly Asn Tyr
145 150 155 160
Gln Asn Ile Tyr Ser Val Asp Thr Asp Asn Phe His Asp Ser Ala Ile
165 170 175
Leu Thr Asp Ser Phe Ile Lys His Gly Arg Thr Lys Ile Ala Cys Leu
180 185 190
His Ala Pro Leu Asp Tyr His Val Ser Ile Asp Arg Leu Ala Gly Tyr
195 200 205
Lys Ser Ser Leu Glu Lys His Gly Ile Ala Ile Asn Pro Asp Trp Val
210 215 220

Ile Asp Gly Gly Tyr Thr His Glu Ser Ala Leu Gln Ala Ala Cys Gln
 225 230 235 240
 Leu Leu Ser Ser Asp Asn Pro Pro Asp Ala Val Phe Ala Thr Asp Ser
 245 250 255
 Met Lys Leu Leu Ser Leu Tyr Arg Ala Ala Asp Glu Leu Asn Leu Thr
 260 265 270
 Ile Pro Glu Gln Val Ala Met Ala Gly Tyr Ser Asp Pro Met Leu Ser
 275 280 285
 Leu Ile Leu Thr Pro Ala Pro Gly Gly Phe Asp Ile Pro Thr Arg Lys
 290 295 300
 Leu Gly Glu Glu Ser Cys Asp Leu Leu Phe Arg Cys Ile Ala Gly Lys
 305 310 315 320
 Pro Ala Pro His Lys Val Leu Val Glu Thr His Phe Ser Asp Ala Ala
 325 330 335
 Ser Leu Arg
 340

<210> 7527

<211> 269

<212> PRT

<213> Enterobacter cloacae

<400> 7527

Cys Gln Ala Ile Phe His Thr His Gly Asn Tyr Leu Ile Lys Arg Gly
 1 5 10 15
 Phe Cys Thr Thr Leu Pro Glu Val Thr Leu Ser Ser Gly Phe Thr Met
 20 25 30
 Ala Thr Thr Arg Pro Arg Thr Glu Arg Gly Ala Phe Pro Gly Thr
 35 40 45
 Glu His Tyr Gly Arg Ser Phe Leu Gly Ala Pro Leu Ile Trp Phe Pro
 50 55 60
 Ala Pro Glu Ala Asp Arg Asn Ser Gly Leu Ile Ile Ala Gly Thr His
 65 70 75 80
 Gly Asp Glu Asn Ser Ser Val Val Thr Leu Ser Cys Ala Leu Arg Thr
 85 90 95
 Leu Ala Pro Asp Leu Arg Arg His His Val Ile Leu Thr Val Asn Pro
 100 105 110
 Asp Gly Cys Gln Leu Gly Leu Arg Ala Asn Ala Arg Gly Val Asp Leu
 115 120 125
 Asn Arg Asn Phe Pro Ala Ala Asn Trp Arg Ala Gly Glu Thr Val Tyr
 130 135 140
 Arg Trp Asn Ser Ser Ala Gln Glu Arg Asp Val Val Leu Leu Thr Gly
 145 150 155 160
 Asp Lys Pro Gly Ser Glu Pro Glu Thr Gln Ala Leu Cys Gln Leu Ile
 165 170 175
 His Lys Ile His Pro Ala Trp Val Ile Ser Phe His Asp Pro Leu Ala
 180 185 190
 Cys Ile Glu Asp Pro Arg His Thr Ala Leu Gly Gln Trp Leu Ala Asp
 195 200 205
 Ala Phe Ala Leu Pro Leu Val Ser Ser Val Gly Tyr Glu Thr Pro Gly
 210 215 220
 Ser Phe Gly Ser Trp Cys Ala Asp Leu Ser Leu His Cys Ile Thr Ala
 225 230 235 240
 Glu Phe Pro Pro Ile Ser Ser Asp Glu Ala Ser Glu Lys Tyr Leu Arg
 245 250 255
 Ala Met Thr Asp Leu Leu Arg Trp Gln Pro Gln Arg
 260 265

<210> 7528

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 7528

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Phe | Val | Asn | Arg | Lys | Ile | Ser | Met | Ser | Gln | Leu | Val | His | Phe | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Asn | Pro | Val | Ala | Val | Ala | Gly | Ser | Ile | Pro | Gln | Ser | Gly | Ser | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Gln | Pro | Phe | Thr | Leu | Val | Ala | Lys | Asp | Leu | Ser | Asp | Val | Thr | Leu |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Ser | Gln | Phe | Ala | Gly | Lys | Arg | Lys | Val | Leu | Asn | Ile | Phe | Pro | Ser | Ile |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Asp | Thr | Gly | Val | Cys | Ala | Ser | Val | Arg | Lys | Phe | Asn | Gln | Leu | Ala | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Glu | Met | Asp | Asn | Thr | Val | Val | Leu | Cys | Ile | Ser | Ala | Asp | Leu | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Ala | Gln | Ser | Arg | Phe | Cys | Gly | Ala | Glu | Gly | Leu | Ser | Asn | Val | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Leu | Ser | Thr | Leu | Arg | Ser | Pro | Asp | Phe | Leu | Glu | Lys | Tyr | Gly | Val |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Ala | Ile | Ser | Glu | Gly | Ala | Leu | Lys | Gly | Leu | Ala | Ala | Arg | Ala | Val | Leu |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Val | Ile | Asp | Glu | Asn | Asp | Asn | Val | Val | Phe | Ser | Glu | Leu | Val | Asn | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ile | Thr | Thr | Glu | Pro | Asp | Tyr | Thr | Ala | Ala | Leu | Glu | Ala | Leu | Lys | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |

<210> 7529

<211> 279

<212> PRT

<213> Enterobacter cloacae

<400> 7529

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Leu | Ile | Arg | Ala | Asn | Val | Leu | Pro | Ala | Ala | Ser | Cys | Glu | Asn | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Ile | Ile | Gly | Ser | Gly | Ala | Asp | Val | Thr | Glu | Tyr | Gln | Ile | Gly | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Val | Cys | Cys | Tyr | Gly | Pro | Leu | Gln | Glu | Thr | Val | Ile | Val | Asn | Ala |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Val | Asn | Asn | Tyr | Lys | Leu | Arg | Lys | Met | Pro | Gln | Gly | Ala | Ser | Trp | Lys |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Asn | Ala | Val | Cys | Tyr | Asp | Pro | Ala | Gln | Phe | Ala | Met | Ser | Gly | Val | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Asp | Ala | Asn | Val | Arg | Val | Gly | Asp | Phe | Val | Val | Val | Val | Gly | Leu | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ile | Gly | Gln | Ile | Ala | Ile | Gln | Leu | Ala | Lys | Lys | Ala | Gly | Ala | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Val | Ile | Gly | Val | Asp | Pro | Ile | Glu | His | Arg | Cys | Glu | Ile | Ala | Arg |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Arg | His | Gly | Ala | Asp | His | Cys | Leu | Asn | Pro | Ile | Gly | Thr | Asp | Val | Gly |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Leu | Glu | Ile | Lys | Lys | Leu | Thr | Gly | Lys | Gln | Gly | Ala | Asp | Val | Ile | Ile |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Glu | Thr | Ser | Gly | Phe | Ala | Asp | Ala | Leu | Gln | Ser | Ala | Leu | Arg | Gly | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Tyr | Gly | Gly | Thr | Ile | Ser | Tyr | Val | Ala | Phe | Ala | Lys | Pro | Phe | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Gly | Phe | Asn | Leu | Gly | Arg | Glu | Ala | His | Phe | Asn | Asn | Ala | Lys | Ile |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Val | Phe | Ser | Arg | Ala | Cys | Ser | Glu | Pro | Asn | Pro | Asp | Tyr | Pro | Arg | Trp |

| | | | | | |
|---|-----|-----|-----|-----|-----|
| 210 | | 215 | | 220 | |
| Ser Arg Lys Arg Ile Glu Thr Cys Trp Glu Leu Leu Met Asn Gly | | | | | |
| 225 | | 230 | | 235 | 240 |
| Tyr Leu Asn Cys Glu Asp Leu Ile Asp Pro Val Val Thr Phe Thr Thr | | | | | |
| | 245 | | 250 | | 255 |
| Ser Pro Glu Ser Tyr Met Lys Tyr Val Asp Gln His Pro Glu Leu Ser | | | | | |
| | 260 | 265 | | 270 | |
| Ile Lys Met Gly Val Thr Phe | | | | | |
| 275 | | | | | |

<210> 7530

<211> 359

<212> PRT

<213> Enterobacter cloacae

<400> 7530

| | | | | | |
|---|-----|-----|-----|--|--|
| Met Leu Arg Met Thr Ser Val Met Ser Ala Ser Thr Pro Leu Pro Leu | | | | | |
| 1 | 5 | 10 | 15 | | |
| Arg Val Ala Ile Ile Gly Ala Gly Gln Val Ala Asp Lys Val His Ala | | | | | |
| | 20 | 25 | 30 | | |
| Ser Tyr Tyr Ala Thr Arg Ser Asp Val Gln Met Val Ala Val Met Asp | | | | | |
| | 35 | 40 | 45 | | |
| Ser Arg Leu Glu Gln Ala Gln Ala Phe Ala Glu Arg Tyr Ala Ile Pro | | | | | |
| | 50 | 55 | 60 | | |
| Ser Ala Trp Gln Asp Ala His Glu Met Leu Gln Glu Val Lys Pro Asp | | | | | |
| 65 | 70 | 75 | 80 | | |
| Val Val Ser Val Cys Ser Pro Asn Arg Phe His Phe Glu His Val Met | | | | | |
| | 85 | 90 | 95 | | |
| Ala Ala Leu Glu Ala Gly Cys His Val Met Cys Glu Lys Pro Pro Ala | | | | | |
| | 100 | 105 | 110 | | |
| Met Thr Pro His Gln Ala Asp Glu Met Arg Leu Ala Ala Arg Lys Ala | | | | | |
| | 115 | 120 | 125 | | |
| Gly Lys Val Leu Ala Tyr Asp Phe His His Arg Phe Ala Leu Asp Thr | | | | | |
| | 130 | 135 | 140 | | |
| Gln His Leu Arg Asp Ala Val Met Asn Gly Thr Leu Gly Glu Ile Tyr | | | | | |
| 145 | 150 | 155 | 160 | | |
| Phe Thr Ser Ala Gln Ala Leu Arg Arg Cys Gly Val Pro Gly Trp Gly | | | | | |
| | 165 | 170 | 175 | | |
| Val Phe Thr Asn Lys Ser Leu Gln Gly Gly Pro Leu Ile Asp Ile | | | | | |
| | 180 | 185 | 190 | | |
| Gly Ile His Met Leu Asp Ala Ala Met Tyr Val Leu Gly Phe Pro Pro | | | | | |
| | 195 | 200 | 205 | | |
| Val Lys Arg Val Thr Ala His Ser Phe Gln Arg Leu Gly Asn Arg Lys | | | | | |
| | 210 | 215 | 220 | | |
| His Thr Gly Gln Phe Gly Glu Trp Asp Pro Ala Gln Phe Thr Val Glu | | | | | |
| 225 | 230 | 235 | 240 | | |
| Asp Ala Leu Phe Gly Thr Ile Glu Phe Cys Asn Gly Gly Ile Leu Arg | | | | | |
| | 245 | 250 | 255 | | |
| Leu Asp Thr Ser Phe Ala Leu Asn Ile Arg Glu Gln Ser Ile Met Asn | | | | | |
| | 260 | 265 | 270 | | |
| Val Ser Phe Cys Gly Glu Lys Ala Gly Ala Thr Leu Phe Pro Ala His | | | | | |
| | 275 | 280 | 285 | | |
| Ile Tyr Asn Asp Glu Ala Gly Val Leu Gln Thr Leu Thr Gln Arg Glu | | | | | |
| | 290 | 295 | 300 | | |
| Glu Ala Asp Asp Arg Arg His Leu Arg Ser Met Asp Ala Phe Val Arg | | | | | |
| 305 | 310 | 315 | 320 | | |
| His Val Leu Gly Glu Pro Val Met Ile Ala Asp Ala Glu Gln Gly Leu | | | | | |
| | 325 | 330 | 335 | | |
| Val Ile Gln Gln Leu Val Ala Ala Leu Tyr Glu Ala Ala Glu Thr Gly | | | | | |
| | 340 | 345 | 350 | | |
| Glu Ser Val Thr Leu Cys | | | | | |

355

<210> 7531
 <211> 255
 <212> PRT
 <213> Enterobacter cloacae

<400> 7531

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| Arg | Cys | Gly | Val | Lys | Arg | Cys | Met | Tyr | Gln | Gly | Gly | Arg | Ser | Val | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Arg | Thr | Phe | Leu | Tyr | Leu | Leu | Met | Gly | Pro | Leu | Pro | Arg | Arg | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Met | Thr | Leu | Asn | Ala | Val | Val | Phe | Asp | Leu | Asp | Gly | Val | Ile | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Thr | Ala | His | Leu | His | Phe | Leu | Ala | Trp | Arg | Ala | Val | Ala | Glu | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Gly | Ile | Thr | Phe | Asp | Glu | Val | Phe | Asn | Glu | Gln | Leu | Lys | Gly | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Arg | Met | Asp | Ser | Leu | Gln | Arg | Ile | Leu | Ile | His | Gly | Gly | Lys | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Met | Phe | Ser | Asp | Glu | Gln | Arg | Leu | Ala | Leu | Ala | Arg | Lys | Lys | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | Tyr | Val | Gln | Ser | Leu | Ser | Ser | Leu | Thr | Gln | Asp | Ser | Leu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Gly | Ile | Arg | Asp | Val | Leu | Ala | Asp | Ile | Arg | Ala | Ala | Lys | Val | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Gly | Leu | Ala | Ser | Val | Ser | Leu | Asn | Ala | Pro | Gly | Ile | Leu | His | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Gly | Ile | His | Gln | Ala | Phe | Asp | Phe | Cys | Ala | Asp | Ala | Ser | Arg | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Arg | Ser | Lys | Pro | Asp | Pro | Glu | Ile | Phe | Leu | Ala | Ala | Cys | Lys | Gly |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Leu | Asn | Val | Arg | Pro | Glu | Glu | Ala | Ile | Gly | Ile | Glu | Asp | Ala | Ala | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Val | Asp | Ala | Ile | Asn | Ala | Ala | Gly | Met | Leu | Ser | Val | Gly | Ile | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Gly | Leu | Asn | His | Ala | Gly | Leu | Gln | Leu | His | Ser | Thr | Gln | Glu | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Trp | Glu | Arg | Leu | Thr | Ala | Phe | Trp | Ala | Ser | Arg | Ala | Tyr | | |
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<210> 7532
 <211> 309
 <212> PRT
 <213> Enterobacter cloacae

<400> 7532

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Ala | Gly | Val | Ser | Cys | Ala | Gln | Ala | Thr | Glu | Ser | Ala | Lys | Gln | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Phe | Asn | Ile | Gly | Ala | Met | Tyr | Glu | Ile | Glu | Asn | Val | Glu | Gly | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Asp | Asp | Lys | Asp | Gly | Leu | Tyr | Glu | Pro | Ser | Val | Trp | Phe | Asn | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Trp | Asp | Ala | Trp | Thr | Ile | Ser | Leu | Ala | Met | Tyr | Gln | Glu | Gly | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Asp | Tyr | Ser | Ser | Met | Thr | Arg | Gly | Thr | Tyr | Phe | Asp | Arg | Pro | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Glu | Leu | Arg | Tyr | Arg | Ile | Ile | Gly | Thr | Asp | Asp | Phe | Thr | Leu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |

Leu Thr Gly Gly Phe Arg Asn Tyr Ser Tyr His Phe Lys Asp Glu Asp
 115 120 125
 Gly Ala Lys Ala Gly Ser Ala Asn Met Gln Arg Tyr Lys Ile Gln Pro
 130 135 140
 Asp Trp Asp Val Lys Leu Thr Asp Asp Trp Arg Phe Gly Gly Trp Phe
 145 150 155 160
 Ala Met Tyr Gln Phe Ala Asn Asp Leu Ala Lys Thr Gly Tyr Ser Asp
 165 170 175
 Ser Arg Val Glu Thr Glu Thr Gly Phe Thr Trp Thr Ile Asn Glu Thr
 180 185 190
 Val Ser Ala Lys Val Asn Tyr Tyr Leu Glu Arg Gly Phe Asn Met Asp
 195 200 205
 Ser Ser Arg Asn Asn Gly Glu Phe Ser Thr Gln Glu Ile Arg Ala Tyr
 210 215 220
 Leu Pro Ile Ser Leu Gly Gln Thr Thr Leu Thr Pro Tyr Thr Arg Leu
 225 230 235 240
 Gly Leu Asp Arg Trp Ser Asn Trp Asp Trp Gln Asp Asp Pro Glu Arg
 245 250 255
 Glu Gly His Asp Phe Asn Arg Leu Gly Met Leu Tyr Ala Tyr Asp Phe
 260 265 270
 Asn Asn Gly Leu Ser Met Thr Leu Glu Tyr Ala Tyr Glu Trp Glu Asn
 275 280 285
 His Asp Glu Gly Glu Ser Asp Arg Phe His Tyr Ala Gly Ile Gly Val
 290 295 300
 Asn Tyr Ala Phe
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<210> 7533

<211> 344

<212> PRT

<213> *Enterobacter cloacae*

<400> 7533

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 Trp Pro Leu His Thr Pro Phe Val Ile Ser Arg Gly Ser Arg Asn Glu
 35 40 45
 Ala Cys Val Val Val Val Glu Cys Glu Glu Asp Gly Val Lys Gly Val
 50 55 60
 Gly Glu Cys Thr Pro Tyr Pro Arg Tyr Gly Glu Ser Leu Ala Ser Val
 65 70 75 80
 Met Ala Gln Ile Met Thr Val Val Pro Glu Leu Gln Ala Gly Leu Thr
 85 90 95
 Arg Glu Ala Leu Gln Leu Arg Leu Pro Ala Gly Ala Ala Arg Asn Ala
 100 105 110
 Ile Asp Cys Ala Leu Trp Ser Leu Glu Ala Ala Lys Arg Gln Lys Pro
 115 120 125
 Leu Pro Ala Leu Leu Asp Val Thr Leu Pro Gln Ser Ile Val Thr Ala
 130 135 140
 Gln Thr Val Val Ile Gly Glu Pro Glu Gln Met Ala Ala Ser Ala Gln
 145 150 155 160
 Ala Leu Tyr Ala Thr Gly Ala Thr Leu Leu Lys Val Lys Leu Asp Asp
 165 170 175
 Arg Leu Ile Ser Glu Arg Met Val Ala Ile Arg Ala Ala Val Pro Asp
 180 185 190
 Ala Thr Leu Ile Val Asp Ala Asn Glu Ser Trp His Ser Glu Gly Leu
 195 200 205
 Ala Ala Arg Cys Gln Leu Leu Ala Asp Leu Gly Val Ala Met Leu Glu
 210 215 220

Gln Pro Leu Pro Ala Glu Asp Asp Ala Ala Leu Ala Asn Phe Ile His
 225 230 235 240
 Pro Leu Pro Val Cys Ala Asp Glu Ser Cys His Thr Arg Glu Ser Leu
 245 250 255
 Ser Ala Leu Lys Gly Arg Tyr Glu Met Val Asn Ile Lys Leu Asp Lys
 260 265 270
 Thr Gly Gly Leu Thr Glu Ala Leu Ala Leu Ala Gln Asp Ala Gln Ala
 275 280 285
 Gln Gly Phe Ala Leu Met Leu Gly Cys Met Leu Cys Thr Ser Arg Ala
 290 295 300
 Ile Gly Ala Ala Leu Pro Leu Val Asn Ser Val Arg Phe Ala Asp Leu
 305 310 315 320
 Asp Gly Pro Thr Trp Leu Ala Val Asp Val Ser Pro Ala Leu Asn Phe
 325 330 335
 Thr Ser Gly Val Leu His Leu
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<210> 7534

<211> 286

<212> PRT

<213> Enterobacter cloacae

<400> 7534

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 Phe Phe Pro Thr Ala Ile Met Glu Lys Phe Glu Tyr Ile Lys Ala Met
 35 40 45
 Gly Phe Asp Gly Tyr Glu Ile Asp Gly Arg Leu Leu Val Glu Asn Leu
 50 55 60
 Asp Glu Val Lys Ala Ala Ile Lys Ala Thr Gly Leu Pro Val Thr Thr
 65 70 75 80
 Ala Cys Gly Gly Tyr Asp Gly Trp Ile Gly Asp Phe Ile Glu Glu Arg
 85 90 95
 Arg Leu Asn Gly Leu Gln Gln Ile Glu Arg Ile Leu Glu Ala Leu Ala
 100 105 110
 Glu Val Gly Gly Lys Gly Ile Ile Val Pro Ala Ala Trp Gly Met Phe
 115 120 125
 Thr Phe Arg Leu Pro Pro Met Thr Ser Pro Arg Ser Leu Asp Gly Asp
 130 135 140
 Arg Lys Ala Val Ser Ala Ser Leu Arg Trp Leu Asp Glu Val Ala Ala
 145 150 155 160
 Arg Thr Gly Thr Thr Val Tyr Leu Glu Pro Leu Asn Arg Tyr Gln Asp
 165 170 175
 His Met Ile Asn Thr Leu Ala Asp Ala Arg Arg Tyr Ile Glu Glu Asn
 180 185 190
 Gly Leu Lys His Val Gln Ile Ile Gly Asp Phe Tyr His Met Asn Ile
 195 200 205
 Glu Glu Asp Ser Leu Thr Glu Ala Leu His Gln Asn Arg Asp Leu Leu
 210 215 220
 Gly His Val His Ile Ala Asp Asn His Arg Tyr Gln Pro Gly Ser Gly
 225 230 235 240
 Ser Leu Asp Phe Ala Ser Leu Phe Asp Gln Leu Arg Ala Asp Asn Tyr
 245 250 255
 Gln Gly Tyr Val Val Tyr Glu Cys Arg Val Arg Ala Asp Asp Pro Ala
 260 265 270
 Gln Ala Tyr Lys Asp Ser Leu Thr Tyr Leu Arg Glu Cys
 275 280 285

<210> 7535

<211> 375

<212> PRT

<213> Enterobacter cloacae

<400> 7535

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20      25      30
Val Val Lys Asp Phe Asn Leu Glu Ile Glu Asp Lys Glu Phe Ile Val
35      40      45
Phe Val Gly Pro Ser Gly Cys Gly Lys Ser Thr Thr Leu Arg Met Ile
50      55      60
Ala Gly Leu Glu Glu Ile Ser Ala Gly Glu Leu Ile Ile Asp Gly Val
65      70      75      80
Cys Met Asn Asp Val Pro Ala Lys Ser Arg Asp Ile Ala Met Val Phe
85      90      95
Gln Asn Tyr Ala Leu Tyr Pro His Met Thr Val Tyr Asp Asn Met Ala
100     105     110
Phe Gly Leu Lys Met Gln Lys Ile Ala Pro Ser Val Ile Glu Glu Arg
115     120     125
Val Thr Trp Ala Ala Gln Ile Leu Gly Leu Arg Asp Tyr Leu Gln Arg
130     135     140
Lys Pro Gly Ala Leu Ser Gly Gly Gln Arg Gln Arg Val Ala Leu Gly
145     150     155     160
Arg Ala Ile Val Arg Glu Ala Gly Val Phe Leu Met Asp Glu Pro Leu
165     170     175
Ser Asn Leu Asp Ala Lys Leu Arg Val Gln Met Arg Ala Glu Ile Ser
180     185     190
Lys Leu His Gln Lys Leu Asn Thr Thr Met Ile Tyr Val Thr His Asp
195     200     205
Gln Thr Glu Ala Met Thr Met Ala Thr Arg Ile Val Ile Leu Lys Asp
210     215     220
Gly Ile Ile Gln Gln Val Gly Ala Pro Lys Gln Val Tyr Asn Glu Pro
225     230     235     240
Ala Asn Met Phe Val Ala Gly Phe Ile Gly Ser Pro Ala Met Asn Phe
245     250     255
Ile Arg Gly Ala Ile Asp Asp Arg Tyr Phe Val Thr Glu Thr Leu Arg
260     265     270
Leu Glu Ile Pro Glu Asp Lys Leu Ala Val Leu Asn Ala Gln Gly Tyr
275     280     285
Gln Arg Lys Ala Val Val Phe Gly Ile Arg Pro Glu Asp Ile Leu Thr
290     295     300
Val Gln Arg Ser Gly Glu Asn Ile Thr Ala Lys Ile Ser Val Ala Glu
305     310     315     320
Leu Thr Gly Ala Glu Phe Met Leu Tyr Ala Thr Val Gly Gly His Glu
325     330     335
Leu Val Val Arg Ala Gly Ala Ala Asp Asp Tyr Val Ala Gly Asp Asn
340     345     350
Ile Gly Ile Gln Phe Asp Met Asn Lys Cys His Phe Phe Asp Ala Asp
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Thr Glu Thr Ala Ile Arg
370      375

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<210> 7536

<211> 353

<212> PRT

<213> Enterobacter cloacae

<400> 7536

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Ile Ala Met Thr Glu Pro Leu Lys Pro Arg Ile Asp Phe Thr Gly Gln

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| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Leu | Glu | Gln | Thr | Pro | His | Glu | Ala | Phe | Lys | Thr | Ala | Gln | Thr |
| | | | 20 | | | | | 25 | | | | 30 | Phe Ser |
| Gly | Pro | Gln | Ala | Asp | Asn | Phe | Ala | Pro | Val | Leu | Ala | Asp | Glu |
| | | 35 | | | | | 40 | | | | | 45 | Pro Met |
| Val | Glu | Glu | Gly | Gln | Ala | Glu | Ala | Val | Val | Asp | Ala | Ala | Leu |
| | 50 | | | | | 55 | | | | 60 | | | Arg Pro |
| Lys | Arg | Ser | Leu | Trp | Arg | Lys | Met | Val | Thr | Ala | Gly | Leu | Ala |
| 65 | | | | | 70 | | | | 75 | | | | Leu Phe |
| Gly | Val | Ser | Val | Ile | Gly | Gln | Gly | Val | Gln | Trp | Gly | Val | Asn |
| | | | | 85 | | | | | 90 | | | | Ala Trp |
| Gln | Thr | Gln | Asp | Trp | Val | Ala | Leu | Gly | Gly | Cys | Ala | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | Ala Leu |
| Ile | Val | Gly | Ala | Gly | Val | Gly | Ser | Val | Val | Ser | Glu | Trp | Arg |
| | | 115 | | | | | 120 | | | | | 125 | Arg Leu |
| Trp | Arg | Leu | Arg | Gln | Arg | Ala | His | Glu | Arg | Asp | Glu | Ala | Arg |
| | 130 | | | | | 135 | | | | 140 | | | Asp Leu |
| Leu | His | Ser | His | Gly | Thr | Gly | Lys | Gly | Arg | Ala | Phe | Cys | Glu |
| 145 | | | | 150 | | | | | 155 | | | | Lys Leu |
| Ala | Ala | Gln | Ala | Gly | Ile | Asp | His | Ser | His | Pro | Ala | Leu | Gln |
| | | | | 165 | | | | | 170 | | | | Arg Trp |
| Tyr | Ala | Ala | Ile | His | Glu | Thr | Gln | Asn | Asp | Gln | Glu | Val | Val |
| | | | 180 | | | | | 185 | | | | | Thr Leu |
| Tyr | Ala | His | Ile | Val | Gln | Pro | Val | Leu | Asp | Ala | Gln | Ala | Arg |
| | 195 | | | | | | 200 | | | | 205 | | Arg Glu |
| Ile | Ser | Arg | Ser | Ala | Ala | Glu | Ser | Thr | Leu | Met | Ile | Ala | Val |
| | 210 | | | | | 215 | | | | 220 | | | Ser Pro |
| Leu | Ala | Met | Val | Asp | Met | Ala | Phe | Ile | Ala | Trp | Arg | Asn | Leu |
| 225 | | | | 230 | | | | | 235 | | | | Arg Leu |
| Ile | Asn | Arg | Ile | Ala | Arg | Leu | Tyr | Gly | Ile | Glu | Leu | Gly | Tyr |
| | | | | 245 | | | | 250 | | | | | Tyr Ser |
| Arg | Leu | Arg | Leu | Phe | Lys | Leu | Val | Leu | Leu | Asn | Ile | Ala | Phe |
| | | | 260 | | | | | 265 | | | | 270 | Ala Gly |
| Ala | Ser | Glu | Leu | Val | Arg | Glu | Val | Gly | Met | Asp | Trp | Met | Ser |
| | 275 | | | | | 280 | | | | 285 | | | Gln Asp |
| Leu | Ala | Ala | Arg | Leu | Ser | Ala | Arg | Ala | Ala | Gln | Gly | Ile | Gly |
| | 290 | | | | | 295 | | | | 300 | | | Ala Gly |
| Leu | Leu | Thr | Ala | Arg | Leu | Gly | Ile | Lys | Ala | Met | Glu | Val | Cys |
| 305 | | | | | 310 | | | | 315 | | | | Arg Pro |
| Leu | Pro | Trp | Ile | Asp | Gly | Asp | Lys | Pro | Arg | Leu | Gly | Asp | Phe |
| | | | | 325 | | | | | 330 | | | | Arg Arg |
| Glu | Leu | Ile | Gly | Gln | Leu | Lys | Glu | Thr | Leu | Asn | Lys | Lys | Pro |
| | | | 340 | | | | | 345 | | | | | Ala Gln |
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<211> 546

<212> PRT

<213> Enterobacter cloacae

<400> 7537

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Leu | Thr | Tyr | His | Phe | Thr | Val | Ile | Gly | Leu | Asn | Gly | Glu | Phe | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Arg | Leu | Glu | Val | Phe | Cys | Glu | Asp | Arg | Leu | Gly | Leu | Thr | Arg | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Asp | Leu | Leu | Val | Leu | Arg | Ser | Ile | Asp | Leu | Arg | Gly | Ile | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ile | Asp | Pro | Val | Gly | Arg | Ile | Tyr | Leu | Asn | Phe | Ala | Glu | Ile | Glu | Phe |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Thr | Phe | Ser | Ser | Leu | Met | Ala | Glu | Ile | Arg | Arg | Ile | Ala | Gly | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Asp | Val | Arg | Thr | Ile | Pro | Trp | Met | Pro | Ser | Glu | Arg | Glu | His | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | Ser | Ala | Leu | Leu | Glu | Ala | Met | Pro | Glu | Pro | Phe | Leu | Ser | Leu |
| | | | 115 | | | | | 120 | | | | 125 | | | |
| Asp | Leu | Lys | Asn | Lys | Val | Glu | Arg | Val | Asn | Gln | Ala | Ser | Cys | Gln | Leu |
| | | | | | | 135 | | | | | 140 | | | | |
| Phe | Ala | Gln | Thr | Gln | Glu | Lys | Leu | Ile | Gly | His | His | Ala | Thr | Gln | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Thr | Gly | Phe | Asn | Phe | Gln | Arg | Trp | Leu | Asp | Ser | Asn | Pro | Gln | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | His | Ser | Glu | His | Val | Val | Ile | Asn | Gly | Gln | Asn | Phe | Leu | Met | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Thr | Pro | Val | Tyr | Leu | Lys | Gly | Glu | Asn | Ala | Ala | Arg | Val | Leu | Thr |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Gly | Ala | Val | Ile | Met | Leu | Arg | Ser | Thr | Val | Arg | Met | Gly | Arg | Gln | Leu |
| | | | | | | 215 | | | | | 220 | | | | |
| Gln | Asn | Leu | Ser | Ser | Gln | Asp | Val | Gly | Ala | Phe | Ser | Gln | Ile | Ile | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Ser | Pro | Lys | Met | Arg | His | Val | Ile | Asp | Gln | Ala | Arg | Lys | Leu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asn | Leu | Thr | Ala | Pro | Leu | Leu | Ile | Thr | Gly | Asp | Thr | Gly | Thr | Gly | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Leu | Leu | Ala | His | Ala | Val | His | Met | Ala | Ser | Pro | Arg | Ala | Ala | Lys |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Pro | Tyr | Leu | Ala | Leu | Asn | Cys | Ala | Ser | Ile | Pro | Glu | Asp | Ala | Val | Glu |
| | | | | | | 295 | | | | | 300 | | | | |
| Ser | Glu | Leu | Phe | Gly | His | Ala | Pro | Glu | Gly | Lys | Lys | Gly | Phe | Phe | Glu |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Gln | Ala | Asn | Gly | Gly | Ser | Val | Leu | Leu | Asp | Glu | Ile | Gly | Glu | Met | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Pro | Arg | Met | Gln | Ala | Lys | Leu | Leu | Arg | Phe | Leu | Asn | Asp | Gly | Thr | Phe |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Arg | Arg | Val | Gly | Glu | Asp | His | Glu | Val | His | Val | Asp | Val | Arg | Val | Ile |
| | | | 355 | | | | 360 | | | | | 365 | | | |
| Cys | Ala | Thr | Gln | Lys | Asn | Leu | Val | Glu | Leu | Val | Gln | Lys | Gly | Val | Phe |
| | | | | | | 375 | | | | | 380 | | | | |
| Arg | Glu | Asp | Leu | Tyr | Tyr | Arg | Leu | Asn | Val | Leu | Thr | Leu | Asn | Ile | Pro |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | Leu | Arg | Asp | Cys | Pro | Gln | Asp | Ile | Met | Pro | Leu | Thr | Glu | Leu | Phe |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Val | Ala | Arg | Phe | Ala | Asp | Glu | Gln | Gly | Val | Pro | Arg | Pro | Lys | Leu | Ser |
| | | | 420 | | | | | 425 | | | | | | | |

<210> 7538
 <211> 770
 <212> PRT
 <213> Enterobacter cloacae

<400> 7538

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| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Leu | Thr | Asp | Pro | Ser | Phe | Cys | Pro | His | Ser | Leu | Asn | Lys | Tyr | Ala | Ser |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ile | Met | Ala | Cys | Gly | Asn | Gly | Tyr | Met | Gly | Ile | Arg | Ala | Thr | His | Glu |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Glu | Asp | Tyr | Thr | Gln | Gln | Thr | Arg | Gly | Met | Tyr | Leu | Ala | Gly | Leu | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Arg | Ala | Gly | Arg | Asn | Glu | Thr | Thr | Glu | Leu | Ile | Asn | Leu | Pro | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Thr | Gly | Val | Glu | Val | Glu | Leu | Asp | Gly | Val | Asn | Phe | Thr | Leu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Gly | Glu | Ile | Leu | Glu | Trp | Gln | Arg | Glu | Leu | Ala | Phe | Ala | Asn | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Glu | Leu | His | Arg | Asn | Val | Val | Trp | Arg | Ser | Pro | Asp | Gly | Lys | Arg | Tyr |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Arg | Leu | Glu | Ser | Arg | Arg | Phe | Val | Ser | Leu | Asp | Gln | Leu | Pro | Leu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Met | Arg | Leu | Ser | Ile | Thr | Pro | Leu | Asp | Gly | Ala | Ala | Gln | Ala | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Lys | Thr | Gly | Ile | Asp | Ala | Thr | Gln | Thr | Asn | Ser | Gly | Arg | Gln | His |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Asp | Glu | Ile | Ser | Val | Arg | Val | Phe | Asp | Gln | His | Tyr | Met | Gln | Gly |
| | 180 | | | | | | | 185 | | | | | 190 | | |
| Val | Tyr | Glu | Thr | Gln | Asp | Arg | Ala | Ser | Glu | Val | Val | Val | Ser | Ala | Phe |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Cys | Gln | Leu | Ser | Ala | Gln | Ser | Asp | Ser | Cys | Phe | Thr | Ala | Lys | Asn | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Leu | Ser | Val | His | His | Ser | Leu | Thr | Ile | Ser | Gln | Gly | Asp | Thr | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Leu | Glu | Lys | Ile | Val | Trp | Leu | Thr | His | Arg | Ser | Asp | Lys | Ala | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ser | Gln | Glu | Ser | Phe | Ala | Arg | Asn | Ala | Leu | Ala | Asp | Leu | Lys | Val | Cys |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Ala | Ala | Arg | Gly | Tyr | Asp | Ala | Leu | Leu | Glu | Ser | Ser | Ala | Tyr | Ala | Trp |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Glu | Ala | Val | Trp | Arg | Asp | Ala | Arg | Val | Glu | Val | Thr | Cys | Ala | Glu | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Asp | Gln | Leu | Ala | Leu | Asp | Tyr | Ala | Val | Trp | His | Leu | Thr | Thr | Met |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Pro | Ala | His | Ser | Glu | Arg | Ser | Ser | Ile | Ala | Ala | Lys | Gly | Leu | Thr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Gly | Glu | Gly | Tyr | Lys | Gly | His | Val | Phe | Trp | Asp | Thr | Glu | Ile | Phe | Leu |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Leu | Pro | Phe | His | Leu | Phe | Thr | Arg | Pro | Gln | Ile | Ala | Arg | Ser | Leu | Leu |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Arg | Tyr | Arg | Trp | Leu | Asn | Leu | Ser | Gly | Ala | Arg | Glu | Lys | Ala | Arg | Arg |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asn | Gly | Trp | Pro | Gly | Ala | Leu | Phe | Pro | Trp | Glu | Ser | Ala | Ala | Ser | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Glu | Glu | Thr | Pro | Glu | Phe | Ala | Ala | Ile | Asn | Ile | Arg | Thr | Gly | Val |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Arg | Gln | Lys | Val | Ala | Ser | Ala | Leu | Ala | Glu | His | His | Ile | Val | Ala | Asp |
| | | | 420 | | | | | 425 | | | | | 430 | | |

Ile Ala Trp Ala Val Val Ala Tyr Trp Gln Ala Thr His Asp Asp Ala
 435 440 445
 Phe Met Arg Asn Glu Gly Leu Thr Leu Leu Met Glu Thr Ala Ser Phe
 450 455 460
 Trp Met Gly Arg Ala Thr Glu Ile Asn Gly Arg Leu Glu Ile His Asp
 465 470 475 480
 Val Ile Gly Pro Asp Glu Tyr Thr Glu His Val Asn Asn Asn Ala Tyr
 485 490 495
 Thr Asn Tyr Leu Ala Trp His Asn Val Ala Cys Ala Arg Gln Phe Met
 500 505 510
 Ala Lys Phe Gly Arg Glu Asp Ala Arg Phe Thr Glu Asn Ala Gly Lys
 515 520 525
 Phe Leu Ala Arg Leu Trp Leu Pro Glu Ala Asp Ala Glu Gly Val Ile
 530 535 540
 Pro Gln Asp Asp Thr Phe Met Ala Lys Pro Ala Ile Asp Leu Ser Arg
 545 550 555 560
 Tyr Lys Ala Lys Ala Gly Lys Gln Thr Ile Leu Leu Asp Tyr Ser Arg
 565 570 575
 Ala Glu Val Asn Glu Met Gln Ile Leu Lys Gln Ala Asp Val Val Met
 580 585 590
 Leu Asn Tyr Leu Leu Pro Glu Arg Phe Thr Pro Gln Gln Cys Ala Ala
 595 600 605
 Asn Leu Ala Phe Tyr Glu Pro Arg Thr Ile His Asp Ser Ser Leu Ser
 610 615 620
 Lys Ala Ile His Gly Ile Val Leu Ala Arg Cys Gly Asp Thr Glu Gly
 625 630 635 640
 Ala Tyr Ala Phe Trp Arg Asp Gly Ile Ala Ile Asp Leu Gly Asp Asp
 645 650 655
 Pro His Ser Ser Asp Asp Gly Ile His Ala Ala Ala Thr Gly Ala Ile
 660 665 670
 Trp Leu Gly Ala Ile Gln Gly Phe Ala Gly Leu His Ile Ser Glu Gly
 675 680 685
 Glu Leu His Leu Ala Pro Lys Leu Pro Ala His Trp Gln Lys Leu Ala
 690 695 700
 Phe Pro Leu Arg Trp Arg Gly Ala Thr Met His Ile Thr Cys Glu Asp
 705 710 715 720
 Asp Leu Leu Thr Ile Glu Thr Thr Ala Pro Val Thr Leu Thr Leu Trp
 725 730 735
 Gly Lys Thr Leu His Val Ser Gly Arg Lys Val Cys Glu Arg Lys Asp
 740 745 750
 Phe Leu Val Pro Val Asn Gly Thr Ala Thr Thr Glu Gly Arg His Asp
 755 760 765
 Ala
 770

<210> 7539

<211> 469

<212> PRT

<213> Enterobacter cloacae

<400> 7539

Arg Thr Ala Met Lys Arg Leu Lys Asn Glu Phe Asn Ser Leu Val Asn
 1 5 10 15
 Arg Gly Val Asp Arg His Leu Arg Leu Ala Val Thr Gly Leu Ser Arg
 20 25 30
 Ser Gly Lys Thr Ala Phe Ile Thr Ala Met Val Asn Gln Leu Leu Asn
 35 40 45
 Leu His Ala Gly Ala Arg Leu Pro Leu Leu Ser Ala Val Arg Glu Glu
 50 55 60
 Arg Leu Leu Gly Val Lys Arg Val Pro Gln Arg Asp Phe Gly Ile Pro
 65 70 75 80

Arg Phe Thr Tyr Asp Glu Gly Leu Ala Gln Leu Tyr Gly Glu Pro Pro
 85 90 95
 Ala Trp Pro Thr Pro Thr Arg Gly Val Ser Glu Ile Arg Leu Ala Leu
 100 105 110
 Arg Phe Arg Ser Asn Glu Ser Leu Met Arg His Phe Lys Glu Thr Ser
 115 120 125
 Thr Leu Tyr Leu Glu Ile Val Asp Tyr Pro Gly Glu Trp Leu Leu Asp
 130 135 140
 Leu Pro Met Leu Ala Gln Asp Tyr Leu Asn Trp Ser Arg Gln Met Thr
 145 150 155 160
 Gly Leu Leu Gln Gly Gln Arg Ala Glu Trp Ser Thr Gln Trp Arg Gln
 165 170 175
 Leu Cys Glu Gly Leu Asp Pro Leu Ala Pro Ala Asp Glu Asn Arg Leu
 180 185 190
 Ala Val Ile Ala Glu Ala Trp Thr Asp Tyr Leu His Gln Cys Lys Gln
 195 200 205
 Glu Gly Leu His Phe Ile Gln Pro Gly Arg Phe Val Leu Pro Gly Asp
 210 215 220
 Leu Ala Gly Ala Pro Ala Leu Gln Phe Phe Pro Trp Pro Asp Val Asp
 225 230 235 240
 Ser Ile Gly Glu Ser Lys Leu Ala Gln Ala Asp Lys Thr Thr Asn Ala
 245 250 255
 Gly Met Leu Arg Glu Arg Tyr Asn Tyr Tyr Cys Glu Lys Val Val Lys
 260 265 270
 Gly Phe Tyr Lys Asn His Phe Leu Arg Phe Asp Arg Gln Ile Val Leu
 275 280 285
 Val Asp Cys Leu Gln Pro Leu Asn Ser Gly Pro Gln Ala Phe Asn Asp
 290 295 300
 Met Arg Leu Ala Leu Thr Gln Leu Met Gln Ser Phe His Tyr Gly Gln
 305 310 315 320
 Arg Thr Leu Phe Arg Arg Leu Phe Ser Pro Val Ile Asp Lys Leu Leu
 325 330 335
 Phe Ala Ala Thr Lys Ala Asp His Val Thr Val Asp Gln His Ala Asn
 340 345 350
 Met Val Ser Leu Leu Gln Gln Leu Val Gln Asp Ala Trp Gln Asn Ala
 355 360 365
 Ala Phe Glu Gly Ile Ser Met Asp Cys Leu Gly Leu Ala Ser Val Gln
 370 375 380
 Ala Thr Gln Ser Gly Leu Ile Asp Leu Asn Gly Glu Lys Ile Pro Ala
 385 390 395 400
 Leu Arg Gly Asn Arg Leu Ser Asp Gly Glu Pro Leu Thr Val Tyr Pro
 405 410 415
 Gly Glu Val Pro Ala Arg Leu Pro Gly Gln Ala Phe Trp Gln Ser Gln
 420 425 430
 Gly Phe Gln Phe Glu Ala Phe Arg Pro Gln Ser Met Asn Val Asp Gln
 435 440 445
 Pro Leu Pro His Ile Arg Leu Asp Ala Ala Leu Glu Phe Leu Ile Gly
 450 455 460
 Asp Lys Leu Arg
 465

<210> 7540

<211> 542

<212> PRT

<213> Enterobacter cloacae

<400> 7540

Gly Asp Arg Met Lys His Pro Val Ser Leu Leu Cys Thr Ala Leu Trp
 1 5 10 15
 Leu Cys Gly Leu Ser Ser Leu Ser Tyr Ala Ala Glu Val Pro Glu Gly
 20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Leu | Ala | Gln | Lys | Gln | Glu | Leu | Val | Arg | His | Ile | Lys | Asp | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Ala | Ser | Leu | Asp | Pro | Ala | Lys | Ala | Val | Gly | Leu | Pro | Glu | Ile | Gln |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Ile | Arg | Asp | Leu | Tyr | Glu | Gly | Leu | Val | Asn | Gln | Asn | Glu | Lys | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Leu | Val | Pro | Gly | Val | Ala | Thr | Arg | Trp | Gln | Ser | Asn | Asp | Asn | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Trp | Thr | Phe | Thr | Leu | Arg | Asp | Asn | Ala | Lys | Trp | Ser | Asp | Gly | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Val | Thr | Ala | Gln | Asp | Phe | Val | Tyr | Ser | Trp | Arg | Arg | Leu | Val | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Lys | Thr | Thr | Ser | Pro | Phe | Ala | Trp | Phe | Ala | Ala | Leu | Ala | Gly | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Asn | Ala | Gln | Ser | Ile | Ile | Asp | Gly | Lys | Ala | Ala | Pro | Asp | Thr | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Val | Thr | Ala | Val | Asp | Ala | Lys | Thr | Leu | Arg | Val | Gln | Leu | Asp | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Pro | Leu | Pro | Trp | Phe | Ser | Asn | Leu | Thr | Ala | Asn | Phe | Ala | Phe | Tyr | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Gln | Lys | Ala | Asn | Val | Glu | Ser | Gly | Lys | Glu | Trp | Thr | Arg | Pro | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Leu | Ile | Gly | Asn | Gly | Ala | Tyr | Val | Leu | Lys | Asp | Arg | Val | Val | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Lys | Leu | Val | Val | Glu | Pro | Asn | Ser | His | Tyr | Trp | Asp | Asn | Ala | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Val | Leu | Lys | Lys | Val | Thr | Phe | Val | Pro | Ile | Asn | Gln | Glu | Ser | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Thr | Lys | Arg | Tyr | Leu | Ala | Gly | Asp | Ile | Asp | Ile | Thr | Glu | Ser | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Lys | Asn | Met | Tyr | Gln | Lys | Leu | Leu | Lys | Asp | Ile | Pro | Gly | Gln | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Tyr | Thr | Pro | Pro | Gln | Leu | Gly | Thr | Tyr | Tyr | Tyr | Ala | Phe | Asn | Thr | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Gly | Pro | Thr | Ala | Asp | Ala | Arg | Val | Arg | Leu | Ala | Leu | Ser | Met | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Asp | Arg | Arg | Ile | Met | Ala | Glu | Lys | Val | Leu | Gly | Thr | Gly | Glu | Lys |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Pro | Ala | Trp | His | Phe | Thr | Pro | Asp | Val | Thr | Ala | Gly | Phe | Thr | Pro | Glu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Ser | Pro | Phe | Glu | Gln | Met | Ser | Gln | Gln | Glu | Leu | Asn | Ala | Gln | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Thr | Leu | Leu | Gln | Ala | Ala | Gly | Tyr | Gly | Pro | Gln | Arg | Pro | Leu | Lys |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Thr | Leu | Leu | Tyr | Asn | Thr | Ser | Glu | Asn | His | Gln | Lys | Ile | Ala | Ile |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Val | Ala | Ser | Met | Trp | Lys | Lys | Asn | Leu | Gly | Val | Asp | Val | Lys | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Gln | Asn | Gln | Glu | Trp | Lys | Thr | Tyr | Ile | Asp | Ser | Arg | Asn | Thr | Gly | Asn |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Phe | Asp | Val | Ile | Arg | Ala | Ser | Trp | Val | Gly | Asp | Tyr | Asn | Glu | Pro | Ser |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Thr | Phe | Leu | Ser | Leu | Leu | Thr | Ser | Ser | His | Ser | Gly | Asn | Ile | Ser | Arg |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Phe | Asn | Asp | Pro | Ala | Tyr | Asp | Lys | Ile | Ile | His | Gln | Ala | Thr | Leu | Glu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Thr | Thr | Glu | Lys | Ala | Arg | Asn | Ala | Asp | Tyr | Asn | Met | Ala | Glu | Lys | Ile |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Leu | Thr | Glu | Lys | Ala | Pro | Ile | Ala | Pro | Ile | Tyr | Gln | Tyr | Thr | Asn | Gly |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Arg | Leu | Ile | Lys | Pro | Trp | Val | Lys | Gly | Tyr | Pro | Ile | Asn | Asn | Pro | Glu |

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 515 | | | | | 520 | | | | | 525 | |
| Asp | Val | Ala | Tyr | Ser | Arg | Thr | Met | Tyr | Ile | Glu | Lys | His |
| | 530 | | | | | 535 | | | | | 540 | |

<210> 7541

<211> 366

<212> PRT

<213> Enterobacter cloacae

<400> 7541

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Ala | Ala | Gly | Gln | Pro | Ile | Arg | Pro | Ile | Cys | Ser | Arg | Ser | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Thr | Thr | Pro | Pro | Leu | Ser | Ile | Ser | Ile | Trp | Ala | Met | Ala | Arg | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Arg | Gly | Ser | Cys | Ser | Trp | Trp | Trp | Pro | Ser | Ser | Pro | Val | Ser | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ser | Arg | Arg | Asn | Thr | Gly | Cys | Ser | Thr | Pro | Pro | Ile | Lys | Glu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Met | Ala | Asp | Ile | Gln | Gln | Leu | Ser | Thr | Ala | Arg | Ser | Val | Ala | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Glu | Val | Ala | Arg | Thr | Leu | Arg | Arg | Glu | Lys | Ile | Asn | Ala | Ser | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Tyr | Val | Ile | Leu | Leu | Val | Val | Gly | Leu | Leu | Met | Leu | Tyr | Pro | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Trp | Met | Phe | Ser | Ala | Ser | Phe | Lys | Pro | Asn | His | Glu | Ile | Phe | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Ser | Leu | Trp | Pro | Ala | His | Ala | Thr | Trp | Asp | Gly | Phe | Val | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Trp | Lys | Thr | Gly | Thr | Glu | Tyr | Asn | Phe | Gly | His | Tyr | Met | Leu | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Phe | Lys | Tyr | Val | Ile | Pro | Lys | Val | Ile | Leu | Thr | Ile | Ile | Ser | Ser |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Thr | Ile | Val | Ala | Tyr | Gly | Phe | Ala | Arg | Phe | Glu | Ile | Pro | Trp | Lys | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Trp | Phe | Ala | Thr | Leu | Ile | Thr | Thr | Met | Leu | Leu | Pro | Ser | Thr | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Leu | Ile | Pro | Gln | Tyr | Leu | Met | Phe | Arg | Glu | Met | Gly | Met | Leu | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Tyr | Met | Pro | Leu | Tyr | Leu | Pro | Leu | Ala | Phe | Ala | Thr | Gln | Gly | Phe |
| | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Val | Phe | Met | Leu | Ile | Gln | Phe | Leu | Arg | Gly | Val | Pro | Arg | Asp | Met |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Glu | Ala | Ala | Gln | Ile | Asp | Gly | Cys | Asn | Ser | Ile | Gln | Val | Leu | Trp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Tyr | Val | Val | Val | Pro | Ile | Leu | Lys | Pro | Ala | Ile | Ile | Ser | Val | Ala | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Gln | Phe | Met | Trp | Ser | Met | Asn | Asp | Phe | Ile | Gly | Pro | Leu | Ile | Tyr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Tyr | Ser | Val | Asp | Lys | Tyr | Pro | Ile | Ala | Leu | Ala | Leu | Lys | Met | Ser |
| | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Asp | Val | Thr | Glu | Gly | Ala | Pro | Trp | Asn | Glu | Ile | Leu | Ala | Met | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ser | Ile | Ser | Ile | Leu | Pro | Ser | Ile | Ile | Val | Phe | Phe | Leu | Ala | Gln | Arg |
| | | | | 340 | | | | | 345 | | | | 350 | | |
| Tyr | Phe | Val | Gln | Gly | Val | Thr | Ser | Ser | Gly | Ile | Lys | Gly | | | |
| | | 355 | | | | | 360 | | | | | 365 | | | |

<210> 7542

<211> 380

<212> PRT

<213> Enterobacter cloacae

<400> 7542

Glu Gly Asn Thr Met Ala Glu Val Ile Phe Asn Lys Leu Glu Lys Val
 1 5 10 15
 Tyr Ser Asn Gly Phe Lys Ala Val His Ala Ile Asp Leu Lys Ile Ala
 20 25 30
 Glu Gly Glu Phe Met Val Ile Val Gly Pro Ser Gly Cys Ala Lys Ser
 35 40 45
 Thr Thr Leu Arg Met Leu Ala Gly Leu Glu Thr Ile Ser Gly Gly Glu
 50 55 60
 Val Arg Ile Gly Asp Lys Ile Val Asn Asn Leu Ala Pro Lys Glu Arg
 65 70 75 80
 Gly Ile Ala Met Val Phe Gln Asn Tyr Ala Leu Tyr Pro His Met Thr
 85 90 95
 Val Arg Glu Asn Leu Ala Phe Gly Leu Lys Leu Ser Lys Leu Pro Lys
 100 105 110
 Asp Gln Ile Glu Ser Gln Val Asn Glu Ala Ala Lys Ile Leu Glu Leu
 115 120 125
 Glu Glu Leu Leu Asp Arg Leu Pro Arg Gln Leu Ser Gly Gly Gln Ala
 130 135 140
 Gln Arg Val Ala Val Gly Arg Ala Ile Val Lys Lys Pro Asp Val Phe
 145 150 155 160
 Leu Phe Asp Glu Pro Leu Ser Asn Leu Asp Ala Lys Leu Arg Ala Ser
 165 170 175
 Met Arg Ile Arg Ile Ser Asp Leu His Lys Gln Leu Lys Lys Ser Gly
 180 185 190
 Lys Pro Ala Thr Thr Val Tyr Val Thr His Asp Gln Thr Glu Ala Met
 195 200 205
 Thr Met Gly Asp Arg Ile Cys Val Met Lys Leu Gly His Ile Met Gln
 210 215 220
 Val Asp Thr Pro Asp Asn Leu Tyr His Lys Pro Arg Asn Met Phe Val
 225 230 235 240
 Ala Gly Phe Ile Gly Ala Pro Glu Met Asn Ile Arg Lys Ser Val Leu
 245 250 255
 Val Glu Lys Ala Gly Gln Leu His Ile Ala Ile Gly Asp Glu Thr Met
 260 265 270
 Pro Leu Asn Ala Glu Lys Gln Glu Lys Val Ala Ala Tyr Ala Gly Gln
 275 280 285
 Glu Ile Tyr Tyr Gly Val Arg Pro Glu Phe Val Ser Leu Ser Asp Glu
 290 295 300
 Pro Phe Pro Asn Gly Gly Cys Ser Gly Glu Met Val Arg Val Glu Asn
 305 310 315 320
 Met Gly His Glu Phe Phe Val Tyr Leu Lys Val Ala Asp Tyr Glu Leu
 325 330 335
 Thr Ala Arg Ile Pro Ser Asp Glu Ala Lys Pro Met Ile Asp Lys Gly
 340 345 350
 Leu His Arg Lys Val Tyr Phe Thr Phe Glu Met Asn Lys Cys His Ile
 355 360 365
 Phe Asp Ala Lys Thr Glu Gln Asn Leu Ser Leu
 370 375 380

<210> 7543

<211> 341

<212> PRT

<213> Enterobacter cloacae

<400> 7543

Met Ala Thr Ile Lys Asp Val Ala Arg Leu Ala Gly Val Ser Val Ala
 1 5 10 15
 Thr Val Ser Arg Val Ile Asn Asn Ser Pro Lys Ala Ser Asp Ala Ser
 20 25 30

Arg Gln Ala Val Gln Asp Ala Met Glu Asn Leu Asn Tyr His Pro Asn
 35 40 45
 Ala Asn Ala Arg Ala Leu Ala Gln Gln Ser Thr Glu Thr Ile Gly Leu
 50 55 60
 Val Val Gly Asp Val Ser Asp Pro Phe Phe Gly Ala Met Val Lys Ala
 65 70 75 80
 Val Glu Gln Val Ser Tyr His Thr Gly Asn Phe Leu Leu Ile Gly Asn
 85 90 95
 Gly Tyr His Asn Glu Gln Lys Glu Arg Gln Ala Ile Glu Gln Leu Ile
 100 105 110
 Arg His Arg Cys Ala Ala Leu Val Val His Ala Lys Met Ile Pro Asp
 115 120 125
 Ala Glu Leu Ile His Leu Met Lys Gln Met Pro Gly Met Val Ile Ile
 130 135 140
 Asn Arg Ile Ile Pro Gly Phe Glu Thr Arg Cys Val Ala Leu Asp Asp
 145 150 155 160
 Arg Tyr Gly Ala Trp Leu Ala Thr Arg His Leu Ile Gln Gln Gly His
 165 170 175
 Thr Arg Ile Gly Tyr Leu Cys Ser Asn His Pro Ile Ser Asp Ala Glu
 180 185 190
 Asp Arg Leu Gln Gly Tyr Tyr Asp Ala Leu Arg Glu Ala Gly Leu Pro
 195 200 205
 Cys Asn Asp Arg Leu Val Ala Tyr Gly Glu Pro Asp Glu Ser Gly Gly
 210 215 220
 Glu Gln Ala Met Thr Glu Leu Leu Gly Arg Gly Arg Asn Phe Thr Ala
 225 230 235 240
 Val Ala Ser Tyr Asn Asp Ser Met Ala Ala Gly Ala Met Gly Val Leu
 245 250 255
 Asn Asp Asn Gly Ile Asp Val Pro Ala Glu Ile Ser Leu Ile Gly Phe
 260 265 270
 Asp Asp Val Leu Val Ser Arg Tyr Val Arg Pro Arg Leu Thr Thr Val
 275 280 285
 Arg Tyr Pro Ile Val Thr Met Ala Thr Gln Ala Ala Glu Leu Ala Leu
 290 295 300
 Ala Leu Ala Glu His Arg Pro Pro Pro Glu Ile Thr His Leu Phe Ser
 305 310 315 320
 Pro Thr Leu Val Arg Arg His Ser Val Val Ser Pro Ala Glu Ala Val
 325 330 335
 Ser Glu Gln Arg
 340

<210> 7544

<211> 319

<212> PRT

<213> Enterobacter cloacae

<400> 7544

Tyr Gly Thr Arg Ser Ala Ile Arg Cys Pro Met Pro Ala Val Asn Leu
 1 5 10 15
 Arg His Ile Glu Ile Phe His Ala Val Met Thr Thr Gly Asn Leu Thr
 20 25 30
 Glu Ala Ala His Met Leu His Thr Ser Gln Pro Thr Val Ser Arg Glu
 35 40 45
 Leu Ala Arg Phe Glu Lys Val Leu Gly Leu Lys Leu Phe Glu Arg Thr
 50 55 60
 Arg Gly Arg Leu His Pro Thr Val Gln Gly Leu Arg Leu Phe Glu Glu
 65 70 75 80
 Val Gln Arg Ser Trp Tyr Gly Leu Asp Arg Ile Val Ser Ala Ala Glu
 85 90 95
 Ser Leu Arg Glu Phe Arg Gln Gly Glu Leu Ser Ile Val Cys Leu Pro
 100 105 110

Val Phe Ser Gln Ser Phe Leu Pro Val Leu Leu Gln Pro Phe Leu Ala
 115 120 125
 Arg Tyr Pro Glu Val Ser Leu Thr Ile Val Pro Gln Glu Ser Pro Leu
 130 135 140
 Leu Glu Glu Trp Leu Ser Ala Gln Arg His Asp Leu Gly Leu Thr Glu
 145 150 155 160
 Thr Leu Val Thr Pro Ala Gly Thr Glu Arg Thr Glu Leu Leu Ser Leu
 165 170 175
 Asp Glu Val Cys Val Leu Pro Ala Ser His Pro Leu Ala His Lys Thr
 180 185 190
 Val Leu Thr Pro Ala Asp Phe His Gly Glu Asn Tyr Ile Ser Leu Ser
 195 200 205
 Gln Thr Asp Ser Tyr Arg Gln Leu Leu Asp Gly Leu Phe Ala Glu His
 210 215 220
 Gln Val Lys Arg Arg Met Val Met Glu Thr His Ser Ala Ala Ser Ile
 225 230 235 240
 Cys Ala Met Val Arg Ala Gly Val Gly Ile Ser Val Val Asn Pro Leu
 245 250 255
 Thr Ala Met Asp Tyr Ala Ser Ser Gly Val Val Leu Arg Arg Phe Ser
 260 265 270
 Val Ser Val Pro Phe Thr Val Ser Leu Ile Arg Pro Leu His Arg Pro
 275 280 285
 Ala Ser Ala Leu Val Asp Ala Phe Ser Glu His Leu Ile Ala His Ala
 290 295 300
 Arg Gln Val Ala Leu Arg Leu Pro Asp Leu Gln Lys Pro Leu
 305 310 315

<210> 7545

<211> 112

<212> PRT

<213> Enterobacter cloacae

<400> 7545

Gln Gly Glu Asn Met Phe Ile Phe His Lys Glu Thr Thr Leu Glu Asp
 1 5 10 15
 Leu Gly Asn Gly Val Thr Arg Arg Ile Leu Ala His Asp Gly Arg Met
 20 25 30
 Met Ala Val Glu Val Asn Phe Glu Gly Ala Ile Gly Pro Met His
 35 40 45
 Asn His Pro His Glu Gln Leu Thr Tyr Val Leu Ser Gly Glu Phe Glu
 50 55 60
 Phe Thr Ile Gly Glu Glu Lys His Val Val Thr Ala Gly Asp Thr Leu
 65 70 75 80
 Tyr Lys Ala Pro His Val Met His Gly Cys Val Cys Leu Lys Pro Gly
 85 90 95
 Thr Leu Leu Asp Thr Phe Thr Pro Val Arg Glu Asp Phe Leu Lys
 100 105 110

<210> 7546

<211> 450

<212> PRT

<213> Enterobacter cloacae

<400> 7546

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 Ala Thr Leu Gly Leu Thr Ala Leu Pro Ser Met Ala Gln Asn Val Asp
 35 40 45
 Leu Arg Met Ser Trp Trp Gly Gly Asn Gly Arg His Gln Val Thr Leu

50 55 60
 Lys Ala Leu Glu Glu Phe His Lys Gln Asn Pro Asp Ile Asn Val Lys
 65 70 75 80
 Ala Glu Tyr Thr Gly Trp Asp Gly His Leu Ser Arg Leu Thr Thr Gln
 85 90 95
 Ile Ala Gly Gly Thr Glu Pro Asp Val Met Gln Thr Asn Trp Asn Trp
 100 105 110
 Leu Pro Ile Phe Ser Lys Thr Gly Asp Gly Phe Tyr Asp Leu Asn Lys
 115 120 125
 Met Lys Asp Val Ile Asp Leu Ser Gln Phe Asp Pro Lys Glu Leu Gln
 130 135 140
 Thr Thr Thr Val Asp Gly Lys Leu Asn Gly Ile Pro Ile Ser Val Thr
 145 150 155 160
 Ala Arg Val Phe Tyr Phe Asn Asp Glu Thr Trp Lys Lys Ala Gly Ile
 165 170 175
 Ala Tyr Pro Lys Thr Trp Asp Glu Leu Met Ala Ala Gly Lys Thr Phe
 180 185 190
 Glu Ser Lys Leu Gly Lys Gln Tyr Tyr Pro Val Ile Leu Glu His Gln
 195 200 205
 Asp Thr Leu Ala Leu Leu Asn Ser Tyr Met Ile Gln Lys Tyr Asn Ile
 210 215 220
 Pro Ala Val Asp Glu Lys Thr Lys Lys Phe Ser Tyr Thr Lys Glu Gln
 225 230 235 240
 Trp Val Glu Phe Phe Gln Thr Tyr Lys Lys Leu Ile Asp Ser His Val
 245 250 255
 Met Pro Asp Thr Lys Tyr Tyr Ala Ser Phe Gly Lys Ser Asn Met Tyr
 260 265 270
 Glu Met Lys Pro Trp Ile Gln Gly Glu Trp Gly Gly Thr Tyr Met Trp
 275 280 285
 Asn Ser Thr Ile Asn Lys Tyr Ser Asp Asn Leu Lys Pro Pro Ala Lys
 290 295 300
 Leu Glu Leu Gly Asn Tyr Pro Met Leu Pro Gly Ala Thr Asp Ala Gly
 305 310 315 320
 Leu Phe Phe Lys Pro Ala Gln Met Leu Ser Ile Gly Lys Thr Thr Lys
 325 330 335
 Asn Pro Glu Ala Ala Ala Lys Leu Ile Asn Phe Leu Leu Asn Ser Lys
 340 345 350
 Glu Gly Val Asp Thr Leu Gly Leu Glu Arg Gly Val Pro Leu Ser Lys
 355 360 365
 Val Ala Val Gln Tyr Leu Thr Glu Asp Gly Thr Ile Lys Glu Asp Asp
 370 375 380
 Pro Ser Val Ala Gly Leu Arg Leu Ala Gln Ser Leu Pro Ala Lys Leu
 385 390 395 400
 Thr Val Ser Pro Tyr Phe Asp Asp Pro Gln Ile Val Ala Gln Phe Gly
 405 410 415
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 Arg
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<211> 373

<212> PRT

<213> Enterobacter cloacae

<400> 7547

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Ile | Ile | Gly | Leu | Ile | Leu | Phe | Thr | Ala | Phe | Pro | Phe | Val | Ser | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Phe | Leu | Ser | Phe | Thr | Asp | Tyr | Asp | Leu | Met | Ser | Pro | Pro | Val | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asn | Gly | Ile | Glu | Asn | Tyr | Arg | Tyr | Met | Phe | Thr | Glu | Asp | Thr | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Lys | Ser | Met | Gly | Val | Thr | Phe | Ala | Tyr | Val | Phe | Leu | Thr | Ile | Pro |

| | | | | | | | | | | | | | | | |
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| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Lys | Leu | Ala | Phe | Ala | Leu | Gly | Ile | Ala | Phe | Val | Leu | Asn | Phe | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Arg | Gly | Ile | Gly | Phe | Phe | Arg | Thr | Ala | Tyr | Tyr | Ile | Pro | Ser | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Gly | Ser | Ser | Val | Ala | Ile | Ala | Val | Leu | Trp | Arg | Ala | Leu | Phe | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Asp | Gly | Leu | Leu | Asn | Ser | Phe | Ile | Gly | Val | Phe | Gly | Phe | Asp | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Asn | Trp | Leu | Gly | Glu | Pro | Ser | Leu | Ala | Leu | Met | Ser | Val | Thr | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Arg | Val | Trp | Gln | Phe | Gly | Ser | Ala | Met | Val | Ile | Phe | Leu | Ala | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Gln | Asn | Val | Pro | Gln | Ser | Gln | Tyr | Glu | Ala | Ala | Met | Ile | Asp | Gly |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ala | Ser | Lys | Trp | Gln | Met | Phe | Met | Lys | Val | Thr | Val | Pro | Leu | Ile | Thr |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Pro | Val | Ile | Phe | Phe | Asn | Phe | Ile | Met | Gln | Thr | Thr | Gln | Ala | Phe | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Phe | Thr | Gly | Pro | Tyr | Val | Ile | Thr | Gly | Gly | Gly | Pro | Thr | Tyr | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Tyr | Leu | Phe | Ser | Leu | Tyr | Ile | Tyr | Asp | Thr | Ala | Phe | Lys | Tyr | Phe |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Met | Gly | Tyr | Gly | Ala | Ala | Leu | Ala | Trp | Ile | Leu | Phe | Leu | Val | Val |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ala | Val | Phe | Ala | Gly | Ile | Ala | Phe | Lys | Ser | Ser | Lys | Tyr | Trp | Val | Phe |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Tyr | Ser | Ala | Asp | Lys | Gly | Gly | Lys | Asn | Gly | | | | | | |
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<210> 7549

<211> 475

<212> PRT

<213> Enterobacter cloacae

<400> 7549

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Gly | Cys | Pro | Ser | Tyr | Ser | Ile | Lys | Ala | Leu | Leu | Leu | Arg | Tyr | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Met | Ala | Phe | Gln | Glu | Lys | Leu | Ile | Asp | Ala | Leu | Gly | Ser | Phe | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Thr | Phe | Asn | Ser | Tyr | Arg | Tyr | Ile | Gln | Ala | Ile | Lys | Ser | Ala | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Thr | Leu | Met | Pro | Val | Ile | Ile | Val | Gly | Ala | Phe | Ser | Val | Leu | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Asn | Met | Val | Leu | Asp | Pro | Lys | Asn | Gly | Leu | Ala | Ser | Phe | Gln | Ser |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Ser | Phe | Leu | Ala | Ala | Leu | Lys | Pro | Ile | Thr | Ser | Ala | Leu | Asn | Tyr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Thr | Leu | Asn | Phe | Leu | Asn | Ile | Gly | Ala | Val | Phe | Leu | Ile | Gly | Ile |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Glu | Leu | Gly | Arg | Ile | Asn | Gly | Ile | Lys | Ser | Leu | Phe | Pro | Gly | Leu | Leu |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Ala | Val | Ile | Cys | Phe | Ile | Cys | Val | Thr | Pro | Thr | Thr | Val | Glu | Met | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Asp | Gly | Glu | Met | His | Val | Val | Lys | Asp | Val | Leu | Leu | Arg | Gln | Phe |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ser | Asp | Thr | Arg | Ser | Leu | Phe | Leu | Gly | Met | Phe | Ile | Ala | Ile | Leu | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |
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<210> 7550
<211> 498
<212> PRT
<213> Enterobacter cloacae
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| Lys 1 | Leu | Pro | His | Ala 5 | Ala | Gln | Ser | Arg | Pro 10 | Arg | Cys | Asn | Lys | Pro 15 | Pro |
| Ile | Thr | His | Glu | Asp 20 | Arg | Met | Ser | Ile | Lys 25 | Gln | Ile | Thr | Ile | Pro 30 | Gln |
| Asp | Phe | Met 35 | Leu | Gly | Ala | Ala | Ala 40 | Ser | Ala | Trp | Gln | Thr 45 | Glu | Gly | Trp |
| Ser | Gly 50 | Lys | Lys | Pro | Gly | Gln 55 | Asp | Ser | Trp | Ile | Asp 60 | Leu | Trp | Tyr | Lys |
| Asn 65 | Asp | Arg | His | Val 70 | Trp | His | Asn | Gly | Tyr | Gly 75 | Pro | Ala | Val | Ala 80 | Thr |
| Asp | Phe | Ile | Asn 85 | Arg | Phe | Arg | Glu | Asp | Val 90 | Ala | Leu | Met | Lys | Gln 95 | Ala |
| Gly | Leu | Thr | His 100 | Tyr | Arg | Thr | Ser | Ile 105 | Asn | Trp | Ser | Arg | Phe 110 | Leu | Thr |
| Asp | Tyr | Glu 115 | Asn | Ala | Thr | Val | Asp 120 | Glu | Glu | Tyr | Ala | Ala 125 | Tyr | Tyr | Asp |
| Ala | Leu 130 | Phe | Asp | Glu | Met | His 135 | Arg | Gln | Gly | Ile | Glu 140 | Pro | Met | Ile | Cys |
| Leu | Glu | His | Tyr | Glu | Leu | Pro | Gly | Val | Gln | Leu | Glu | Thr | Tyr | Gly | Gly |

145 150 155 160
 Trp Ala Ser Lys His Val Val Glu Leu Phe Val Arg Tyr Ala Glu Lys
 165 170 175
 Val Phe Glu Arg Phe His Gly Lys Val Thr Arg Trp Phe Thr Phe Asn
 180 185 190
 Glu Pro Ile Val Val Gln Thr Arg Val Tyr Leu Asp Ala Leu Arg Trp
 195 200 205
 Pro Tyr Glu Gln Asn Thr Ser Thr Trp Met Gln Trp Asn His His Lys
 210 215 220
 Val Leu Ala Thr Ala Lys Val Val Lys Leu Phe Arg Glu Lys Gly Tyr
 225 230 235 240
 Asp Gly Ser Val Gly Cys Ile Leu Asn Pro Glu Val Thr Tyr Pro Arg
 245 250 255
 Ser Arg Ala Pro His Asp Glu Arg Ala Ala Glu Met Tyr Asp Leu Phe
 260 265 270
 Tyr Asn Arg Val Phe Leu Asp Pro Leu Val His Gly Arg Tyr Pro Gln
 275 280 285
 Ala Leu Phe Thr Leu Leu Ala Gln His Gln Val Gln Trp Asp Tyr Thr
 290 295 300
 Ala Asp Glu Leu Ala Leu Ile Ala Asp Asn Thr Val Asp Glu Leu Gly
 305 310 315 320
 Ile Asn Leu Tyr Tyr Pro His Arg Val Lys Ala Pro Ser Arg Ala Trp
 325 330 335
 His Pro Glu Thr Pro Phe His Pro Ala Tyr Tyr Tyr Glu Pro Phe Glu
 340 345 350
 Leu Pro Gly Arg Arg Met Asn Thr Ser Arg Gly Trp Glu Ile Phe Pro
 355 360 365
 Arg Ile Ile Tyr Asp Met Ala Met Arg Ile Lys Asn Asp Tyr Arg Asn
 370 375 380
 Ile Asp Trp Phe Val Ala Glu Ser Gly Met Gly Val Glu Asn Glu Ala
 385 390 395 400
 Gln Phe Arg Asn Arg Asp Gly Ile Ile Asp Asp Thr Tyr Arg Ile Ala
 405 410 415
 Phe Ile Ser Glu His Leu Tyr Tyr Thr Leu Leu Ala Arg Glu Ala Gly
 420 425 430
 Ala Asn Cys His Gly Tyr Met Leu Trp Ala Phe Thr Asp Asn Val Ser
 435 440 445
 Pro Met Asn Ala Phe Lys Asn Arg Tyr Gly Leu Ile Glu Ile Asp Leu
 450 455 460
 Glu Asn Gln Arg Ala Arg Arg Ala Lys Lys Ser Ala Ser Trp Phe Arg
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 Gln Leu Arg Asp Glu Arg Val Leu Thr Leu Arg Val Asp Asp Glu Trp
 485 490 495
 Lys

<210> 7551

<211> 265

<212> PRT

<213> Enterobacter cloacae

<400> 7551

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 Gln Gly His Tyr Pro Val Gly Ser Arg Leu Pro Pro Glu Arg Asn Ile
 35 40 45
 Ala Glu Thr Tyr Gly Val Ser Arg Thr Ile Val Arg Glu Ala Leu Leu
 50 55 60
 Met Leu Glu Leu Gln Gly Thr Val Asp Ile Arg Gln Gly Ser Gly Val

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Tyr | Val | Met | Arg | Ile | Pro | Glu | Glu | His | Glu | Asn | Glu | Glu | Glu | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Asn | Ser | Asp | Val | Gly | Pro | Phe | Glu | Ile | Leu | Gln | Ala | Arg | Gln | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Glu | Ser | Asn | Ile | Ala | Ala | Phe | Ala | Ala | Lys | Met | Ala | Thr | Arg | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Ile | Asp | Asn | Leu | Arg | Arg | Ile | Ile | Glu | Gln | Glu | Gln | Arg | Ala | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Ala | Asp | Asp | Arg | Ser | Gln | Asp | Asn | Asn | Lys | Met | Phe | His | Leu | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Ala | Gly | Ala | Thr | Gln | Asn | Gln | Met | Leu | Leu | Ala | Thr | Val | Glu | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Trp | His | His | Met | Asp | Ser | Ser | Pro | Leu | Trp | Gln | Gln | Phe | Asn | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| His | Ile | Ala | Ser | Arg | Ala | Trp | Arg | Leu | Lys | Trp | Leu | Gly | Asp | Arg | Gln |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Thr | Ile | Leu | Ala | Ala | Leu | Arg | Arg | Arg | Asp | Val | Met | Gly | Ala | Trp | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Met | Phe | Gln | His | Leu | Glu | Asn | Val | Lys | Lys | Ser | Leu | Leu | Glu | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Asp | Glu | Asp | Ala | Pro | Asp | Phe | Asp | Gly | Tyr | Leu | Phe | Glu | Ser | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Pro | Leu | Phe | Gln | Gly | Lys | Leu | Val | | | | | | | | |
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<211> 774

<212> PRT

<213> Enterobacter cloacae

<400> 7552

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| Leu | Val | Arg | Ile | Pro | Gly | Thr | Phe | Ser | Tyr | Ser | Ser | Leu | Ala | Pro | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Ala | Asp | Ala | Gln | Val | Phe | Phe | Arg | Leu | Cys | Phe | Cys | Tyr | Arg | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Thr | Ser | Arg | Val | Ile | Cys | His | His | Leu | Tyr | Leu | Ser | His | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ala | Lys | Gly | Val | Glu | Met | Leu | Phe | Gly | Phe | Phe | Arg | Thr | Leu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Val | Leu | Phe | Arg | Ile | Arg | Val | Thr | Gly | Asp | Thr | Gln | Ala | Leu | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Glu | Arg | Val | Leu | Ile | Thr | Pro | Asn | His | Val | Ser | Phe | Leu | Asp | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Leu | Leu | Ala | Leu | Phe | Leu | Pro | Val | Arg | Pro | Val | Phe | Ala | Val | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ser | Ile | Ser | Glu | Lys | Trp | Tyr | Met | Arg | Trp | Leu | Lys | Pro | Leu | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Phe | Val | Pro | Leu | Asp | Pro | Thr | Lys | Pro | Met | Met | Ile | Lys | His | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Arg | Leu | Ile | Gly | Gln | Gly | Arg | Pro | Val | Val | Ile | Phe | Pro | Glu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Ile | Ser | Val | Thr | Gly | Ser | Leu | Met | Lys | Ile | Tyr | Asp | Gly | Ala | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Val | Ala | Ala | Lys | Ser | Gln | Ala | Thr | Val | Val | Pro | Leu | Arg | Ile | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Ala | Glu | Leu | Thr | Phe | Phe | Ser | Arg | Leu | Lys | Gly | Leu | Val | Lys | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Leu | Phe | Pro | Lys | Ile | Thr | Leu | His | Ile | Leu | Pro | Pro | Thr | Ser | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Met | Pro | Glu | Ala | Pro | Arg | Ala | Arg | Asp | Arg | Arg | Lys | Ile | Ala | Gly |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Glu | Met | Leu | His | Gln | Ile | Met | Met | Glu | Ala | Arg | Met | Ala | Val | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Arg | Glu | Thr | Leu | Tyr | Glu | Ser | Leu | Leu | Ser | Ala | Gln | Tyr | Arg | Tyr |
| | | | 260 | | | | | 265 | | | | | 270 | Gly |
| Ala | Lys | Lys | Asn | Cys | Ile | Glu | Asp | Ile | Asn | Phe | Thr | Pro | Asp | Thr |
| | | | 275 | | | | 280 | | | | | 285 | | Tyr |
| Arg | Lys | Leu | Leu | Thr | Lys | Thr | Leu | Phe | Val | Gly | Arg | Ile | Leu | Glu |
| | | | 290 | | | 295 | | | | | 300 | | | Lys |
| Tyr | Ser | Lys | Gln | Gly | Glu | Lys | Ile | Gly | Leu | Met | Leu | Pro | Asn | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | Gly |
| Ile | Ser | Ala | Ala | Val | Ile | Phe | Gly | Ala | Val | Ser | Arg | Gly | Arg | Ile |
| | | | | 325 | | | | | 330 | | | | | Pro |
| Ala | Met | Met | Asn | Tyr | Thr | Ala | Gly | Val | Lys | Gly | Leu | Ser | Ser | Ala |
| | | | 340 | | | | 345 | | | | | | 350 | Ile |
| Thr | Ala | Ala | Gln | Ile | Asn | Thr | Val | Phe | Thr | Ser | Arg | Gln | Phe | Leu |
| | | | 355 | | | | 360 | | | | | 365 | | Asp |
| Lys | Gly | Lys | Leu | Trp | His | Leu | Pro | Glu | Gln | Leu | Thr | Gln | Val | Arg |
| | | | 370 | | | 375 | | | | | 380 | | | Trp |
| Val | Phe | Leu | Glu | Asp | Leu | Lys | Ala | Asp | Val | Thr | Thr | Ala | Asp | Lys |
| 385 | | | | | 390 | | | | | 395 | | | | Leu |
| Trp | Ile | Phe | Ala | His | Leu | Leu | Met | Pro | Arg | Leu | Ala | Gln | Val | Lys |
| | | | | 405 | | | | | 410 | | | | | Gln |
| Gln | Pro | Glu | Asp | Asp | Ala | Ile | Ile | Leu | Phe | Thr | Ser | Gly | Ser | Glu |
| | | | 420 | | | | | 425 | | | | | 430 | Gly |
| Asn | Pro | Lys | Gly | Val | Val | His | Ser | His | Lys | Ser | Ile | Leu | Ala | Asn |
| | | | 435 | | | | 440 | | | | | 445 | | Val |
| Glu | Gln | Ile | Lys | Thr | Ile | Ala | Asp | Phe | Thr | Ala | Asn | Asp | Arg | Phe |
| | | | 450 | | | 455 | | | | 460 | | | | Met |
| Ser | Ala | Leu | Pro | Leu | Phe | His | Ser | Phe | Gly | Leu | Thr | Val | Gly | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | Phe |
| Thr | Pro | Leu | Leu | Thr | Gly | Ala | Glu | Val | Phe | Leu | Tyr | Pro | Ser | Pro |
| | | | | 485 | | | | | 490 | | | | | Leu |
| His | Tyr | Arg | Ile | Val | Pro | Glu | Leu | Val | Tyr | Asp | Arg | Asn | Cys | Thr |
| | | | 500 | | | | | 505 | | | | | 510 | Val |
| Leu | Phe | Gly | Thr | Ser | Thr | Phe | Leu | Gly | Asn | Tyr | Ala | Arg | Phe | Ala |
| | | | 515 | | | | 520 | | | | | 525 | | Asn |
| Pro | Tyr | Asp | Phe | Phe | Arg | Val | Arg | Tyr | Val | Val | Ala | Gly | Ala | Glu |
| | | | 530 | | | 535 | | | | | 540 | | | Lys |
| Leu | Gln | Asp | Ser | Thr | Arg | Gln | Ile | Trp | Gln | Asp | Lys | Phe | Gly | Leu |
| 545 | | | | | 550 | | | | 555 | | | | | Arg |
| Ile | Leu | Glu | Gly | Tyr | Gly | Val | Thr | Glu | Cys | Ala | Pro | Val | Val | Ser |
| | | | 565 | | | | | 570 | | | | | | Ile |
| Asn | Val | Pro | Met | Ala | Ala | Lys | Pro | Gly | Thr | Val | Gly | Arg | Ile | Leu |
| | | | 580 | | | | | 585 | | | | | 590 | Pro |
| Gly | Leu | Asp | Ala | Arg | Leu | Leu | Ala | Val | Pro | Gly | Ile | Glu | Asp | Gly |
| | | | 595 | | | | 600 | | | | | 605 | | Gly |
| Arg | Leu | Gln | Leu | Lys | Gly | Pro | Asn | Val | Met | Asn | Gly | Tyr | Leu | Arg |
| | | | 610 | | | 615 | | | | | 620 | | | Val |
| Glu | Asn | Pro | Gly | Val | Leu | Glu | Ala | Pro | Thr | Ala | Glu | Asn | Val | Asn |
| 625 | | | | | 630 | | | | | 635 | | | | Gly |
| Glu | Val | Glu | Thr | Gly | Trp | Tyr | Asp | Thr | Gly | Asp | Ile | Val | Arg | Phe |
| | | | | 645 | | | | | 650 | | | | | Asp |
| Asp | Gln | Gly | Phe | Val | Gln | Ile | Gln | Gly | Arg | Ala | Lys | Arg | Phe | Ala |
| | | | 660 | | | | | 665 | | | | | 670 | Lys |
| Ile | Ala | Gly | Glu | Met | Val | Ser | Leu | Glu | Met | Val | Glu | Thr | Leu | Ala |
| | | | 675 | | | | 680 | | | | | 685 | | Thr |
| Ala | Val | Ser | Ala | Glu | Lys | Met | His | Ala | Thr | Val | Val | Lys | Ser | Asp |
| | | | 690 | | | 695 | | | | | 700 | | | Ala |
| Ser | Lys | Gly | Glu | Ala | Leu | Val | Leu | Phe | Thr | Thr | Asp | Gly | Glu | Leu |
| 705 | | | | | 710 | | | | | 715 | | | | Lys |
| | | | | | | | | | | | | | | 720 |

Arg Asp Ala Leu Leu Arg Tyr Ala Arg Glu His Gly Ile Pro Glu Leu
 725 730 735
 Ala Val Pro Arg Asp Ile Arg Tyr Leu Lys Gln Leu Pro Val Leu Gly
 740 745 750
 Ser Gly Lys Pro Asp Phe Val Thr Leu Lys Gly Met Val Glu Glu Ala
 755 760 765
 Glu Gln Gln Asn Ala
 770

<210> 7553

<211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 7553

Phe Leu His Ser Cys Met Ile Cys Tyr Thr Gly Thr Ser Gln Ala Glu
 1 5 10 15
 Phe His Cys Ile Leu Lys Arg Arg Thr Val Met Ser Ala Met Asp Phe
 20 25 30
 Lys Lys His Thr Asp Leu Asn Phe Pro His Tyr Ala Pro Pro Ala Val
 35 40 45
 Ser Ala Lys Glu Ile Asp Leu Leu Gly Leu Leu Asp Val Leu Leu Ala
 50 55 60
 Ala Lys Lys Arg Ile Ile Thr Ile Val Phe Ala Phe Ala Leu Val Gly
 65 70 75 80
 Leu Ala Ile Ala Phe Leu Ile Pro Gln Lys Trp Thr Ser Lys Ala Val
 85 90 95
 Ile Thr Pro Ala Glu Gln Thr Gln Trp Ser Ser Leu Arg Gln Met Met
 100 105 110
 Val Ala Leu Gln Val Leu Asp Val Asp Val Lys Ile Thr Arg Ala Asp
 115 120 125
 Val Cys Asn Leu Phe Ile Lys Lys Phe Gln Ser Gln Ser Leu Leu Glu
 130 135 140
 Glu Tyr Met Lys Ser Ser Pro Tyr Val Met Ala Gln Leu Asp Gly Ala
 145 150 155 160
 Asp Val Asp Pro Leu Glu Leu His Arg Ala Val Val Asn Ile Ala Glu
 165 170 175
 Lys Met Lys Ala Val Asp Asn Thr Gln Glu Lys Asn Ala Asp Lys Ala
 180 185 190
 Pro Tyr Leu Ser Trp Thr Leu Ser Phe Thr Ala Pro Thr Ala Glu Asp
 195 200 205
 Ala Gln Lys Val Leu Asn Gly Tyr Ile Gln Tyr Ile Ser Arg Ile Val
 210 215 220
 Glu Gln Glu Thr Met Gln Asn Ile Arg Asp Gln Leu Ile Leu Lys Thr
 225 230 235 240
 Lys Thr Val Gln Gln Gln Leu Glu Ser Asp Arg Val Arg Leu Thr Asn
 245 250 255
 Ile His Asn Thr Asn Leu Gln Arg Leu Asn Tyr Ser Leu Glu Val Ala
 260 265 270
 Asn Ala Ala Gly Ile Lys Lys Pro Val Tyr Ser Asn Gly Gln Ala Val
 275 280 285
 Lys Asp Asp Pro Asp Tyr Ser Val Ala Leu Gly Ala Asp Gly Ile Ala
 290 295 300
 Gln Lys Leu Gln Ile Glu Lys Asn Leu Lys Asp Val Ser Glu Leu Asn
 305 310 315 320
 Ala Asp Phe Gln Asn Arg Glu Tyr Tyr Leu Ala Gln Leu Gln Lys Leu
 325 330 335
 Ser Phe Glu Asp Val Ser Leu Glu Pro Phe Lys Tyr Gln Leu Ser Pro
 340 345 350
 Ser Met Pro Val Lys Lys Asp Gly Pro Gly Lys Ala Leu Ile Val Leu
 355 360 365

Leu Ala Cys Ile Leu Gly Gly Leu Phe Ala Cys Gly Ser Val Leu Leu
 370 375 380
 Arg Glu Ala Met Ser Thr Arg Asn Pro Leu Pro Glu Gln Leu Pro Glu
 385 390 395 400
 Pro Val Thr Glu
 405

<210> 7554
 <211> 395
 <212> PRT
 <213> Enterobacter cloacae

<400> 7554

His Gln Lys Arg Arg Ser Thr Glu Arg Leu Phe Leu Phe Gln Glu Ile
 1 5 10 15
 Phe Ala Tyr Arg Arg Lys Gly Ile Gln Gln Gly Ala Gly Phe Gln Ala
 20 25 30
 Asn Ala Ala Val His His Val Arg Arg Phe Ile Glu Gly Val Ala Arg
 35 40 45
 Gly His His Met Leu Leu Leu Ala Asn Gly Glu Leu Lys Phe Pro Arg
 50 55 60
 Glu Asn Val Gly Glu Leu Leu Met Arg Val Val Met His Arg Ala Asn
 65 70 75 80
 Arg Ala Phe Leu Glu Ile His Phe His Arg His His Pro Ala Val Val
 85 90 95
 Arg Gln Asn Thr Thr Arg His Ala Val Ala Gln Ile Leu Lys Arg Gly
 100 105 110
 Leu Phe Met Glu Asn Lys His Ile Phe Ala Leu Leu Cys Asn Glu Thr
 115 120 125
 Leu Phe Gln Leu Thr Tyr Leu Thr Arg Arg Glu Lys Glu Thr Phe Ser
 130 135 140
 Gln Ile Thr Gly Lys Ala Ile Thr Ser Leu Leu His Trp Val Lys Arg
 145 150 155 160
 Thr Gly Gly Lys Met Lys Thr Ile Gly Leu Leu Gly Gly Met Ser Trp
 165 170 175
 Glu Ser Thr Ile Pro Tyr Tyr Arg Leu Ile Asn Glu Gly Val Lys Gln
 180 185 190
 Arg Leu Gly Gly Leu His Ser Ala Ser Leu Leu Leu His Ser Val Asp
 195 200 205
 Phe His Glu Ile Glu Ala Cys Gln Ser Ser Gly Glu Trp Asp Lys Ala
 210 215 220
 Gly Gln Ile Leu Ala Asp Ala Ala Leu Gly Leu Glu Arg Ala Gly Ala
 225 230 235 240
 Gln Gly Ile Leu Leu Cys Thr Asn Thr Met His Lys Val Ala Ser His
 245 250 255
 Ile Glu Asp Arg Cys Ser Leu Pro Phe Leu His Ile Ala Asp Ala Thr
 260 265 270
 Gly Arg Ala Ile Arg Thr Ala Gly Met Thr Arg Val Ala Leu Leu Gly
 275 280 285
 Thr Arg Tyr Thr Met Glu Gln Asp Phe Tyr Arg Gly Arg Leu Ser Ser
 290 295 300
 Gln Phe Gly Ile Glu Ser Leu Ile Pro Glu Glu Ala Asp Arg Ala Arg
 305 310 315 320
 Ile Asn Gln Ile Ile Phe Asp Glu Leu Cys Leu Gly Thr Phe Ser Glu
 325 330 335
 Ala Ser Arg Ala Trp Tyr Val Ser Val Ile Glu Lys Leu Ala Gln Gln
 340 345 350
 Gly Ala Glu Gly Val Ile Phe Gly Cys Thr Glu Ile Gly Leu Leu Val
 355 360 365
 Pro Ala Asp Arg Ser Pro Ile Ser Val Phe Asp Thr Ala Ala Ile His
 370 375 380

JC530 U.S. PRO

09/252691



02/18/99

Ala Ala Asp Ala Val Glu Phe Met Leu Ser
 385 390 395

<210> 7555

<211> 455

<212> PRT

<213> Enterobacter cloacae

<400> 7555

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Cys | Ser | Ile | Ser | Phe | Leu | His | Arg | Leu | Thr | Ile | Lys | Arg | Tyr | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Phe | Ser | Ser | Gly | Tyr | Gly | Val | Met | Ile | Lys | Asn | Arg | Phe | Pro | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Thr | Met | Pro | Arg | Pro | Leu | Asn | Gln | Thr | Glu | Thr | Asp | Leu | Asn | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Asn | Leu | Leu | Arg | Leu | Pro | Ala | Glu | Phe | Gly | Cys | Pro | Val | Trp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Asp | Ala | Gln | Ile | Val | Arg | Glu | Lys | Ile | Ala | Ala | Leu | His | Gln | Phe |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Asp | Val | Val | Arg | Phe | Ala | Gln | Lys | Ala | Cys | Ser | Asn | Ile | His | Ile | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Met | Arg | Glu | Gln | Gly | Val | Lys | Val | Asp | Ser | Val | Ser | Leu | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Glu | Ile | Glu | Arg | Ala | Leu | Val | Ala | Gly | Phe | Asp | Pro | Lys | Ala | Asp | Ser |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| Asp | Ala | Ile | Val | Phe | Thr | Ala | Asp | Leu | Ile | Asp | Asp | Ala | Thr | Leu | Ala |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Arg | Val | His | Glu | Leu | Gln | Ile | Pro | Val | Asn | Ala | Gly | Ser | Val | Asp | Met |
| | | | | 150 | | | | | | 155 | | | | | 160 |
| Leu | Glu | Gln | Leu | Gly | Gln | Val | Ser | Pro | Gly | His | Arg | Val | Trp | Leu | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Asn | Pro | Gly | Phe | Gly | His | Gly | His | Ser | Gln | Lys | Thr | Asn | Thr | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Glu | Asn | Ser | Lys | His | Gly | Ile | Trp | Tyr | Ala | Asp | Met | Pro | Ala | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Glu | Val | Leu | Gln | Arg | Tyr | Asn | Leu | Lys | Leu | Val | Gly | Ile | His | Met |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| His | Ile | Gly | Ser | Gly | Val | Asp | Tyr | Gly | His | Leu | Glu | Gln | Val | Cys | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Met | Val | Arg | Gln | Val | Ile | Asp | Phe | Gly | Gln | Asp | Leu | Glu | Ala | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Ala | Gly | Gly | Gly | Leu | Ser | Ile | Pro | Tyr | Arg | Glu | Gly | Glu | Glu | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Asp | Thr | Asp | His | Tyr | Tyr | Gly | Leu | Trp | Ser | Ala | Ala | Arg | Asp | Arg |
| | | 275 | | | | | 280 | | | | | | 285 | | |
| Ile | Ala | Ala | His | Leu | Gly | His | Ala | Val | Lys | Leu | Glu | Ile | Glu | Pro | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Arg | Phe | Leu | Val | Ala | Glu | Ala | Gly | Val | Leu | Val | Ala | Gln | Val | Arg | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Val | Lys | Glu | Met | Gly | Ser | Arg | His | Phe | Val | Leu | Ile | Asp | Ala | Gly | Phe |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Asn | Asp | Leu | Met | Arg | Pro | Ser | Met | Tyr | Gly | Ser | Tyr | His | His | Ile | Thr |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Leu | Ala | Ala | Asp | Gly | Arg | Asp | Leu | Val | Asn | Ala | Pro | Arg | Ile | Glu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Thr | Val | Val | Ala | Gly | Pro | Leu | Cys | Glu | Ser | Gly | Asp | Val | Phe | Thr | Gln |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Gln | Glu | Gly | Gly | Lys | Val | Glu | Thr | Arg | Ser | Leu | Pro | Glu | Val | Lys | Pro |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Asp | Tyr | Leu | Val | Leu | His | Asp | Thr | Gly | Ala | Tyr | Gly | Ala | Ser | Met |
| | | | | 405 | | | | | 410 | | | | | 415 | |

Ser Ser Asn Tyr Asn Ser Arg Pro Leu Leu Pro Glu Val Leu Phe Asp
 420 425 430
 Asn Gly Val Ala Arg Leu Ile Arg Arg Arg Gln Thr Ile Gln Glu Leu
 435 440 445
 Leu Ala Leu Glu Leu Val
 450 455

<210> 7556

<211> 310

<212> PRT

<213> Enterobacter cloacae

<400> 7556

Arg Ala Trp Leu Lys Arg Gln Asn Ser Lys Met Arg Glu Ser Val His
 1 5 10 15
 Thr Asn Thr Ser Ile Trp Ser Lys Gly Met Met Ala Val Ile Ala Ala
 20 25 30
 Gln Phe Leu Ser Ala Phe Gly Asp Asn Ala Leu Leu Phe Ala Thr Leu
 35 40 45
 Ala Leu Leu Lys Ala Glu Phe Tyr Pro Asp Trp Ser Gln Pro Ile Leu
 50 55 60
 Gln Met Val Phe Val Gly Ala Tyr Ile Val Phe Ala Pro Phe Val Gly
 65 70 75 80
 Gln Val Ala Asp Ser Phe Pro Lys Gly Arg Val Met Met Phe Ala Asn
 85 90 95
 Ser Leu Lys Leu Leu Gly Ala Ala Ser Ile Cys Phe Gly Ile Asn Pro
 100 105 110
 Phe Val Gly Tyr Thr Leu Val Gly Ile Gly Ala Ala Ala Tyr Ser Pro
 115 120 125
 Ala Lys Tyr Gly Ile Leu Gly Glu Leu Thr Thr Gly Asp Lys Leu Val
 130 135 140
 Lys Ala Asn Gly Leu Met Glu Ser Ser Thr Ile Ala Ala Ile Leu Leu
 145 150 155 160
 Gly Ser Val Ala Gly Gly Val Leu Ala Asp Trp His Val Leu Ala Ala
 165 170 175
 Leu Gly Ile Cys Ala Leu Met Tyr Gly Gly Ala Val Ile Ala Asn Leu
 180 185 190
 Phe Ile Pro Lys Leu Ala Val Ala Arg Pro Gly Gln Ser Trp Arg Phe
 195 200 205
 Gly Pro Met Thr Gly Ser Phe Phe Asn Ala Cys Arg Val Leu Trp Arg
 210 215 220
 Asn Gly Glu Thr Leu Phe Ser Leu Met Gly Thr Ser Met Phe Trp Gly
 225 230 235 240
 Ala Gly Val Thr Leu Arg Phe Leu Leu Val Leu Trp Val Pro Val Ala
 245 250 255
 Leu Gly Ile Thr Asp Asn Ala Thr Pro Thr Tyr Leu Asn Ala Met Val
 260 265 270
 Ala Val Arg Ile Val Val Arg Ala Gly Ala Ala Ala Lys Leu Val Thr
 275 280 285
 Leu Glu Asn Arg Pro Arg Ala Ala Cys Leu Pro Gly Ile Leu Asp Trp
 290 295 300
 Gly Pro Ala Phe Cys Ser
 305 310

<210> 7557

<211> 180

<212> PRT

<213> Enterobacter cloacae

<400> 7557

Ser Arg Gly Arg Ile Lys Met Gln Tyr Thr Arg Leu Gly Lys Ser Asp


```

1          5          10          15
Leu Leu Val Ser Arg Ile Cys Met Gly Cys Met Gly Phe Gly Asp Pro
20          25          30
Leu Thr Gly Gln His Arg Trp Thr Leu Asp Glu Thr Ala Ser Arg Asp
35          40          45
Ile Ile Arg Tyr Gly Leu Glu Lys Gly Ile Asn Phe Tyr Asp Thr Ala
50          55          60
Ile Ala Tyr Gln Asn Gly Ser Ser Glu Arg Tyr Val Gly Arg Ala Leu
65          70          75          80
Arg Glu Met Ala Lys Arg Glu Asp Val Val Leu Ala Thr Lys Phe Leu
85          90          95
Pro Arg Thr Ala Ala Gln Ile Ala Ala Gly Ile Gly Gly Lys Glu Ala
100          105          110
Ile Ala Arg Ser Leu Asp Gln Ser Leu Gln Asn Leu Gly Met Asp Tyr
115          120          125
Ile Asp Leu Tyr Ile Tyr His Ile Trp Asp Tyr Asn Thr Pro Val Ile
130          135          140
Glu Val Leu Glu Ala Leu His Ala Ala Val Thr Ala Gly Lys Val Arg
145          150          155          160
Ala Ile Gly Ile Ser Asn Cys Tyr Ala Trp Gln Leu Ala Lys Ala Asn
165          170          175
Ala Leu Ala
180

```

<210> 7558

<211> 121

<212> PRT

<213> Enterobacter cloacae

<400> 7558

```

Arg Glu Gly Leu Thr Ala Phe Val Ser Val Gln Ser His Tyr Asn Leu
1          5          10          15
Ile Met Arg Glu Asp Glu Arg Glu Leu Phe Gly Leu Cys Ala Glu Asp
20          25          30
Asp Ile Ala Met Thr Pro Tyr Ser Ala Leu Ala Ser Gly Arg Leu Ser
35          40          45
Arg Lys Glu Gly His Thr Arg Arg Ala Ser Glu Asp Ala Tyr Ala Arg
50          55          60
Gly Lys Tyr Asp Ser Thr Ala Glu Gln Asp Arg Ser Ile Ile Glu Arg
65          70          75          80
Val Ala Glu Leu Ala Glu Arg His Gln Val Ser Met Thr Glu Ile Ser
85          90          95
Leu Ala Trp Leu Leu Thr Lys Val Thr Ser Pro Val Val Gly Ala Arg
100          105          110
Lys Lys Ile Thr Ser Met Ala Arg
115          120

```

<210> 7559

<211> 203

<212> PRT

<213> Enterobacter cloacae

<400> 7559

```

Thr Arg Ile Tyr Arg Val Leu Cys Gln Gln Gly Met Pro Leu Arg Leu
1          5          10          15
Leu Ser Ile Tyr Asn Ser His Leu Arg Asn Thr Met His Ile Arg Lys
20          25          30
Gly Leu Ser Thr Asp Leu Ala Arg Leu Glu Cys Cys Asp Phe Ser Phe
35          40          45
Thr Val Asp Glu Ile Ala Arg Glu Pro Phe Leu Asn Gly Asp Leu His
50          55          60

```



```

Ile Glu Ala Leu Thr Glu Pro Tyr Leu Lys Thr Tyr Glu Leu Asp Leu
65      70      75      80
Gln Thr Leu Glu Asn His Cys Val Asn Pro Asp Ser Ile Phe Leu Ile
      85      90      95
Ala Glu Thr Asp Asp Gly Glu Ile Ala Gly Phe Ile Thr Ala Ser Cys
      100      105      110
Asn Trp Asn Lys Phe Ile Ser Val Asp Tyr Ile Ala Val Glu Arg Ser
      115      120      125
Lys Arg Arg Thr Gly Ala Ala His Lys Leu Met Ser Ala Thr His Val
      130      135      140
Trp Ala Arg Ser Leu Asn Ala Pro Gly Leu Arg Leu Glu Thr Gln Asn
145      150      155      160
Val Asn Val Ser Ala Cys Leu Phe Tyr Arg His Tyr Gly Phe Ile Leu
      165      170      175
Gly Gly Tyr Asp Arg Tyr Leu Tyr Asn Ala Leu Pro Glu Lys Asp Glu
      180      185      190
Val Ala Leu Phe Trp Tyr Tyr Met Leu Ala
      195      200

```

<210> 7560

<211> 197

<212> PRT

<213> Enterobacter cloacae

<400> 7560

```

Arg Leu Ile Leu Glu Leu Thr Ile Lys Glu Ala Gly Met Ser Thr Gly
1      5      10      15
Asn Asn His Thr Leu His Tyr Pro Arg Pro Pro Phe Ala Glu Gln Pro
      20      25      30
Gln Arg Ala Pro Gly Leu Ala Ser Glu Met Lys Pro Ile Pro Asp His
      35      40      45
Gly Glu Thr Ser Tyr Ile Gly Ser Gly Lys Leu Ala Gly Lys Lys Ala
      50      55      60
Leu Ile Thr Gly Gly Asp Ser Gly Ile Gly Arg Ala Val Ala Ile Ala
65      70      75      80
Tyr Ala Arg Glu Gly Ala Asp Val Ala Ile Gly Tyr Leu Pro Glu Glu
      85      90      95
Glu Ser Asp Ala Ala Ser Val Ile Ala Leu Ile Gln Ala Glu Gly Arg
      100      105      110
Lys Ala Val Ala Ile Pro Gly Asp Ile Arg Val Glu Ser Phe Cys Asp
      115      120      125
Thr Leu Val Glu Lys Ala Val Ala Glu Leu Gly Gly Leu Asp Ile Leu
      130      135      140
Val Asn Asn Ala Gly Arg Gln Gln Tyr Cys Glu Ser Ile Asp Asp Leu
145      150      155      160
Thr Thr Ala Asp Phe Asp Ala Thr Phe Lys Thr Asn Val Tyr Ala Pro
      165      170      175
Phe Trp Ile Thr Lys Ala Ala Leu Arg Leu His Pro Arg Glu Arg Ala
      180      185      190
Arg Ser Arg Ala
      195

```

<210> 7561

<211> 403

<212> PRT

<213> Enterobacter cloacae

<400> 7561

```

Gly Gly Ser Gln Pro Gly Trp Gly Ile Pro Ser Gly Gly Leu Gly Arg
1      5      10      15
Phe Ile Gln Lys Pro Pro Asn Cys Ser Glu Asn Val Leu Met Asp Gly

```



```
<210> 7562
<211> 358
<212> PRT
<213> Enterobacter cloacae
```

<400> 7562
 Ser Ala Ser Leu Leu Leu Leu Cys Met Lys Gly Glu Asn Met Lys Ile
 1 5 10 15
 Ile Cys Leu Glu His Tyr Leu Asp Ser Glu Leu Gly Arg Ala Cys
 20 25 30
 Met Pro Val Ala Leu Glu Gln Ala Pro Phe Leu Gly Asp Trp Gly Lys


```
<210> 7563
<211> 194
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Glu | Met | Lys | Asn | Ile | Leu | Ile | Val | Ser | Gly | His | Pro | Glu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | His | Ser | Val | Ala | Asn | Ala | Thr | Ile | Leu | Asp | Glu | Val | Ala | Thr | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Pro | Asp | Ala | Glu | Ile | Arg | Arg | Leu | Asp | Trp | Leu | Tyr | Pro | Asp | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Phe | Asn | Ile | Ala | Ala | Glu | Gln | Glu | Ser | Leu | Leu | Arg | Ala | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Val | Trp | Gln | Phe | Pro | Phe | Ser | Trp | Tyr | Gly | Leu | Pro | Gly | Leu | Met |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Lys | Gln | Trp | Leu | Asp | Glu | Val | Phe | Val | His | Gly | Phe | Ala | His | Gly | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Ala | Lys | Leu | Gly | Gly | Lys | Lys | Leu | Leu | Leu | Ser | Phe | Thr | Thr | Gly |


```
<210> 7564
<211> 214
<212> PRT
<213> Enterobacter cloacae
```

```
<210> 7565
<211> 254
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 7565 | | | | | | | | | | | | | | | | |
| Asn | Val | Leu | Asn | Ser | His | Phe | Ser | Lys | Arg | Ile | Ile | Val | Lys | Lys | Thr | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Leu | Met | Leu | Leu | Ile | Cys | Met | Leu | Ile | Ser | Ser | Pro | Val | Phe | Ala | Thr | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Lys | Leu | Asp | Ala | Pro | Asp | Lys | Arg | Val | Met | Asn | Ile | Phe | Glu | Leu | Gly | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Pro | Asp | Arg | Asp | Lys | Asp | Phe | Ala | Asp | Val | Ala | Arg | Gln | Thr |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Ile | Ser | Ala | Ser | Val | Asp | His | Glu | Ala | Gly | Thr | Leu | Ala | Met | Tyr | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | His | Arg | Ser | Asp | Asn | Pro | Arg | Gln | Ala | Phe | Met | Val | Glu | Leu | Tyr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Asn | Glu | Asn | Ala | Tyr | Arg | Lys | His | Leu | Asn | Ala | Glu | Pro | Tyr | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Phe | Ala | Asp | Arg | Ala | Pro | Asp | Ile | Ile | Asp | Gln | Lys | Asn | Lys | Ile |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Glu | Pro | Gln | Phe | Leu | Gly | Asp | Lys | His | Ile | Ile | Pro | Asp | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Thr | Ile | Asn | Asn | Leu | Val | Ile | Val | Glu | Val | Lys | Pro | Glu | Phe | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Glu | Phe | Lys | Asn | Ile | Val | Leu | Pro | Glu | Met | Ala | Glu | Ser | Leu | Lys |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Glu | Lys | Gly | Val | Leu | Ala | Met | Tyr | Ala | Ala | Thr | Asp | Ser | Gln | Thr |
| | | | 180 | | | | | | 185 | | | | 190 | | |
| Pro | Asn | Arg | Trp | Tyr | Phe | Tyr | Glu | Ile | Tyr | Ala | Ser | Glu | Glu | Ala | Tyr |
| | 195 | | | | | | 200 | | | | 205 | | | | |
| Gln | Leu | His | Arg | Gln | Thr | Pro | His | Phe | Arg | Asp | Tyr | Leu | Arg | Gln | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | His | Met | Ser | Ala | Ser | Lys | Asn | Ala | Ile | Pro | Val | Lys | Pro | Val | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Arg | Asn | Lys | Ser | Gly | Ile | Lys | Gln | Asp | Pro | His | Arg | | | |
| | | | | 245 | | | | | 250 | | | | | | |

<210> 7566

<211> 273

<212> PRT

<213> Enterobacter cloacae

<400> 7566

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Arg | Ile | Asn | Met | Lys | Ser | Val | Ile | Ala | Ala | Ala | Ala | Met | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Val | Ile | Ser | Asp | Phe | Ala | Thr | Ala | Glu | Glu | Thr | Arg | Gly | Lys | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Met | Met | Lys | Ile | Glu | Pro | Ser | Thr | Ile | Ser | Glu | Ala | Asp | Ile | Arg | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Ser | Pro | Ala | Leu | Ala | Arg | Phe | Gly | Arg | Glu | Ala | Ile | Thr | Glu | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Trp | Thr | Arg | Asp | Ala | Leu | Ser | Pro | Arg | Asp | Arg | Ser | Met | Val | Thr |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Val | Ala | Met | Leu | Ile | Ala | Arg | Asn | Gln | Pro | Gly | Asp | Leu | Lys | His | Tyr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Met | Asp | Ile | Ala | Leu | Asp | Asn | Gly | Val | Thr | Pro | Ala | Glu | Leu | Ser | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Ile | Thr | His | Leu | Ala | Phe | Tyr | Ser | Gly | Trp | Pro | Asn | Ala | Met | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Val | Ser | Val | Thr | Lys | Ala | Val | Phe | Glu | Thr | Arg | Gly | Val | Thr | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Ala | Leu | Pro | Asp | Ala | Ser | Pro | Asp | Leu | Leu | Pro | Leu | Asn | Gln | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Glu | Lys | Gln | Arg | Ser | Glu | Thr | Val | Glu | Lys | Asn | Val | Gly | Pro | Ile |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ser | Pro | Gly | Leu | Val | Lys | Phe | Thr | Ala | Asp | Pro | Leu | Phe | Leu | Asp | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Trp | Gln | Arg | Pro | Ala | Leu | Lys | Pro | Arg | Asp | Arg | Ser | Leu | Ile | Thr | Val |
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| Ser | Ala | Leu | Ile | Ala | Ser | Gly | Gln | Ser | Ala | Gln | Ile | Gly | Tyr | His | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |

| | | | | | | | | | | | | | | | |
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| Asn | Arg | Ala | Met | Asp | Asn | Gly | Leu | Ser | Val | Glu | Glu | Ala | Gly | Glu | Ile |
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| Val | Thr | Gln | Ala | Ala | Phe | Tyr | Ala | Gly | Trp | Pro | Asn | Ala | Phe | Thr | Ala |
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| Lys | Ser | His | Leu | Tyr | Ser | Phe | Val | Ile | His | Thr | Leu | Phe | Ser | Glu | Asp |
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| Asn | Leu | Met | Thr | Leu | Phe | Ser | Ser | Gln | Pro | Gly | Asp | Glu | Gly | Leu | Pro |
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| Gly | Pro | Ala | Arg | Ala | Arg | Val | Met | Ala | Ala | Ile | Met | Thr | Thr | Thr | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Gly | Val | Phe | Asp | Gly | Thr | Met | Ile | Asn | Ile | Ala | Leu | Pro | Ser | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Gln | Glu | Met | Gln | Val | Pro | Ala | Ser | Ile | Ala | Val | Trp | Phe | Ala | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Tyr | Leu | Leu | Ala | Ala | Ala | Met | Ser | Leu | Ala | Ile | Phe | Ala | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Arg | Leu | Gly | Tyr | Arg | Pro | Val | Phe | Leu | Ala | Gly | Leu | Thr | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Thr | Leu | Thr | Ser | Leu | Gly | Cys | Ala | Leu | Ala | Lys | Thr | Pro | Glu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Ile | Gly | Met | Arg | Val | Leu | Gln | Gly | Ile | Gly | Gly | Ala | Ala | Thr | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Ile | Ala | Pro | Ala | Ile | Leu | Arg | Ser | Val | Phe | Pro | Gly | Arg | Leu | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Arg | Ile | Leu | Gly | Leu | His | Ala | Leu | Leu | Ile | Ala | Ser | Ser | Ser | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Gly | Pro | Val | Leu | Gly | Gly | Thr | Ile | Leu | His | Thr | Leu | Ser | Trp | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Trp | Leu | Phe | Ala | Ile | Asn | Val | Val | Pro | Gly | Thr | Leu | Ala | Leu | Leu | Leu |
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| Ala | Val | Lys | Ala | Leu | Pro | Arg | Asp | Ala | Val | Arg | Lys | Gln | Ala | Pro | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Thr | Pro | Gly | Ala | Ile | Leu | Ser | Ala | Leu | Leu | Leu | Gly | Ser | Thr | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Met | Ala | Ala | Asn | Ser | Leu | Gln | Glu | Ala | Thr | Tyr | His | Pro | Gly | Ser | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Cys | Trp | Thr | Val | Leu | Ala | Ala | Leu | Ser | Gly | Met | Ala | Phe | Ile | Trp | Gln |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Arg | Arg | Thr | Asp | Asn | Pro | Leu | Leu | Pro | Pro | Thr | Met | Phe | Lys | Asn |
| | 290 | | | | 295 | | | | | | 300 | | | | |
| Glu | Arg | Phe | Thr | Leu | Ala | Ala | Phe | Thr | Ser | Met | Ile | Ala | Phe | Val | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gln | Gly | Ile | Thr | Phe | Ile | Ala | Leu | Pro | Phe | Leu | Phe | Gln | Ser | Glu | Tyr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Tyr | Ser | Pro | Val | Leu | Ser | Ala | Leu | Leu | Phe | Thr | Pro | Trp | Pro | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gly | Ile | Val | Leu | Ile | Ala | Pro | His | Ala | Gly | Arg | Trp | Ala | Asp | Thr | Ile |
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Ser Ala Pro Ala Ile Ser Thr Leu Gly Leu Val Ile Phe Val Val Gly
 370 375 380
 Leu Ile Leu Leu Ala Thr Leu Pro Asp Arg Pro Thr Met Trp Asp Ile
 385 390 395 400
 Cys Leu Arg Ser Leu Val Cys Gly Met Gly Phe Gly Cys Phe Gln Ser
 405 410 415
 Pro Asn Asn Arg Glu Met Leu Ser Asn Val Ile Arg Glu His Ala Ser
 420 425 430
 Tyr Ala Ser Gly Val Leu Ser Ile Met Arg Thr Phe Gly Gln Cys Leu
 435 440 445
 Gly Ala Ala Ala Val Ala Val Leu Leu Ala Ala Asp Glu Arg Ser Ile
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 35 40 45
 Glu Trp Leu Lys Gln Arg Gly Leu Lys Asn Gln Ala Leu Gly Ala Ala
 50 55 60
 Arg Thr Phe Val Ile Cys Lys Thr Gly Thr Lys Gln Val Ala Gly Phe
 65 70 75 80
 Tyr Ser Leu Ala Thr Gly Ser Val Asn His Thr Gln Ala Thr Gly Asn
 85 90 95
 Leu Arg Arg Asn Met Pro Asp Pro Ile Pro Val Ile Ile Leu Ala Arg
 100 105 110
 Leu Ala Val Asp Val Ser Leu Arg Gly Asn Gly Leu Gly Ala Asp Leu
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 Leu His Asp Ala Val Leu Arg Cys Tyr Arg Val Ala Glu Asn Ile Gly
 130 135 140
 Val Arg Ala Ile Met Val His Ala Leu Thr Glu Glu Ala Lys Ala Phe
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| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| | | 35 | | | | 40 | | | | 45 | | | | |
| Thr | Thr | Asn | Ser | Thr | His | Gly | Tyr | Asp | Val | Thr | Asp | Pro | Asn | Glu Ile |
| | 50 | | | | | 55 | | | | 60 | | | | |
| Asp | Pro | Ala | Ile | Gly | Gly | Arg | Glu | Gly | Phe | Asp | Arg | Met | Ala | Ala Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Lys | Gln | Ala | Gly | Met | Gly | Leu | Ile | Leu | Asp | Ile | Val | Pro | Asn His |
| | | | | 85 | | | | | 90 | | | | | 95 |
| Met | Ser | Thr | Ser | Leu | Glu | Asn | Arg | Trp | Trp | Arg | Asp | Val | Ile | Glu His |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Gly | Gly | Gln | Ser | Arg | Tyr | Ala | Ala | Tyr | Phe | Asp | Ile | Asp | Trp | Ser Arg |
| | | 115 | | | | | 120 | | | | | 125 | | |
| Pro | Leu | Thr | Leu | Pro | Phe | Leu | Gly | Asp | Thr | Phe | Glu | Ala | Glu | Leu Glu |
| | 130 | | | | | 135 | | | | | 140 | | | |
| Arg | Gly | Thr | Ile | Thr | Leu | Lys | Arg | Asp | Ser | Val | Thr | Asn | Ser | Ala Ala |
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Leu | Val | Tyr | Tyr | Asp | Thr | Ala | Tyr | Pro | Leu | Asn | Pro | Gly | Thr | Tyr Ala |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Glu | Gly | Lys | Ser | Ile | Ala | Glu | Ile | His | Glu | Ala | Gln | Ser | Trp | Arg Leu |
| | | | 180 | | | | | 185 | | | | | 190 | |
| Met | Ser | Trp | Arg | Glu | Ala | Pro | Lys | Gln | Leu | Ser | Trp | Arg | Arg | Phe Phe |
| | | 195 | | | | | 200 | | | | | 205 | | |
| Glu | Ile | Thr | Gly | Leu | Val | Gly | Val | Arg | Val | Glu | Asp | Glu | Ala | Val Phe |
| | 210 | | | | | 215 | | | | | 220 | | | |
| Ala | Asp | Thr | His | His | Leu | Ile | Leu | Glu | Leu | Val | His | Ala | Gly | Val Val |
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| Asp | Gly | Leu | Arg | Ile | Asp | His | Val | Asp | Gly | Leu | Ala | Asp | Pro | Leu Gly |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Tyr | Leu | Gln | Arg | Leu | Arg | Ala | Ala | Thr | Gly | Pro | Asp | Cys | Tyr | Ile Thr |
| | | 260 | | | | | | 265 | | | | | 270 | |
| Val | Glu | Lys | Ile | Leu | Ala | Lys | Gly | Gln | Leu | Pro | Pro | Glu | Trp | Pro |
| | | 275 | | | | | 280 | | | | 285 | | | |
| Ile | Ser | Gly | Thr | Thr | Gly | Tyr | Glu | Phe | Ile | Ala | Ser | Leu | Ala | Glu Val |
| | 290 | | | | | 295 | | | | | 300 | | | |
| Leu | Val | Asp | Asp | Thr | Asn | Leu | Ser | Arg | Leu | Glu | Met | Leu | Tyr | Asp Glu |
| 305 | | | | | 310 | | | | | 315 | | | | 320 |
| Thr | Leu | Gly | Thr | Thr | Val | Asp | Arg | Gln | Ala | Glu | Leu | Arg | Asn | Ala Lys |
| | | | | 325 | | | | | 330 | | | | | 335 |
| Gly | Leu | Met | Thr | Asp | Arg | Asn | Phe | Glu | Gly | Glu | Phe | Thr | Thr | Leu Leu |
| | | 340 | | | | | | 345 | | | | | 350 | |
| Lys | Ile | Ala | Ser | Glu | Leu | Ala | Gly | His | Asn | Gly | Ala | Glu | Val | Glu His |
| | | 355 | | | | | 360 | | | | | 365 | | |
| Asp | Asp | Ile | Arg | His | Ala | Leu | Arg | Glu | Leu | Leu | Ile | Ala | Phe | Pro Val |
| | 370 | | | | | 375 | | | | | 380 | | | |
| Tyr | Arg | Thr | Tyr | Gly | Thr | Ala | Glu | Gly | Leu | Thr | Pro | Pro | Asp | Val Ala |
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| Leu | Leu | Ser | Arg | Val | Val | Ala | Ser | Val | Asn | Ala | Ser | Glu | Pro | Ala Leu |
| | | | | 405 | | | | | 410 | | | | | 415 |
| Ser | Leu | Ile | Val | Arg | Ile | Leu | Thr | Gly | Asp | Leu | Pro | Glu | His | Asp His |
| | | | 420 | | | | | 425 | | | | | 430 | |
| Ala | Leu | Ala | Ser | Leu | Phe | Arg | Thr | Arg | Phe | Gln | Gln | Leu | Thr | Gly Pro |
| | | 435 | | | | | 440 | | | | | 445 | | |
| Leu | Met | Ala | Lys | Ser | Val | Glu | Asp | Thr | Leu | Phe | Phe | Arg | His | Asn Leu |
| | 450 | | | | | 455 | | | | | 460 | | | |
| Glu | Leu | Ala | Leu | Asn | Glu | Val | Gly | Ala | Asp | Pro | Thr | Pro | Arg | Ala Phe |
| 465 | | | | | 470 | | | | | 475 | | | | 480 |
| Ser | Leu | Ser | Arg | Phe | His | Gln | Glu | Met | Arg | Ile | Arg | Leu | Ala | Arg Gln |
| | | | | 485 | | | | | 490 | | | | | 495 |
| Pro | Asp | Ala | Leu | Gly | Thr | Ser | Thr | His | Asp | Thr | Lys | Arg | Gly | Glu |
| | | | 500 | | | | 505 | | | | | 510 | | |
| Asp | Ala | Arg | Ala | Arg | Leu | Tyr | Thr | Leu | Thr | Glu | Ala | Pro | Asp | Leu Trp |
| | | 515 | | | | | 520 | | | | | 525 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Asn | Leu | Ala | Arg | Trp | Arg | Gln | Met | Asn | Gln | Thr | Gln | Val | Arg |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Phe | Leu | Asn | Asp | Gly | Thr | Ala | Pro | Asn | Ala | Ala | Asp | Thr | Trp | Met | Ile |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Phe | Gln | Ala | Leu | Ala | Gly | Val | Trp | Pro | Ala | Thr | Leu | Ser | Pro | Glu | Asp |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Arg | Asp | Gly | Leu | Lys | Ser | Leu | Glu | Glu | Arg | Phe | Leu | Gly | Phe | Ile | Glu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Lys | Ala | Leu | Arg | Glu | Ala | Lys | Gln | Arg | Thr | Asp | Trp | Ile | Asp | Ser | Asn |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Glu | Gly | Tyr | Glu | Ser | Val | Val | Leu | Asp | Tyr | Val | Arg | His | Leu | Leu | Ser |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Pro | Asp | Asn | Thr | Leu | Phe | Leu | Arg | Asp | Phe | Ser | Ala | Ala | Leu | Gln | Pro |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Phe | Ile | Arg | Ala | Gly | Leu | Met | Asn | Ser | Leu | Ser | Gln | Thr | Val | Ile | Lys |
| | | | 645 | | | | | 650 | | | | | | 655 | |
| Leu | Thr | Ala | Pro | Gly | Val | Pro | Asp | Ile | Tyr | Gln | Gly | Ser | Glu | Gly | Leu |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Asn | Phe | Ser | Leu | Val | Asp | Pro | Asp | Asn | Arg | Arg | Glu | Pro | Asp | Phe | Ala |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Ala | Leu | Ala | Glu | Asn | Leu | Ser | Val | Ala | Asp | Gly | Thr | Val | Phe | Asn | Asp |
| | | 690 | | | | | 695 | | | | 700 | | | | |
| Ala | Gln | Arg | Trp | Arg | Asp | Gly | Ser | Val | Lys | Gln | Tyr | Val | Thr | Ala | Thr |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Leu | Leu | Arg | Leu | Arg | Pro | His | Tyr | Pro | Ala | Leu | Phe | Arg | Tyr | Gly | Asp |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Trp | Leu | Pro | Leu | Lys | Val | Thr | Gly | Glu | Arg | Glu | Glu | Asn | Leu | Ile | Val |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Tyr | Ala | Arg | Ile | Lys | Asp | Asp | Glu | Ala | Leu | Ile | Val | Ala | Val | Pro | Arg |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Leu | Val | Phe | Asp | Val | Thr | Asp | Asn | Ala | Leu | Leu | Trp | Ala | Asn | Thr | Ile |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Val | Ala | Ile | Pro | Gln | Glu | Leu | Ala | Gly | Lys | His | Tyr | Arg | Asp | Leu | Phe |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Thr | Gly | Glu | Arg | Arg | Leu | Leu | Pro | Asp | Thr | Leu | Asp | Leu | Thr | Ser | Glu |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Lys | Gly | Cys | Leu | Leu | Val | Leu | Leu | Thr | Cys | Asp | | | | | |
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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | His | Gly | Gln | Gln | Leu | Gly | Ala | Asn | Tyr | Asp | Gly | Lys | Gly | Val | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Ala | Leu | Phe | Ser | Ala | His | Ala | Glu | Arg | Val | Glu | Leu | Cys | Leu | Phe |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Asp | Pro | Ser | Gly | Lys | Thr | Glu | Ile | Ala | Arg | Leu | Glu | Leu | Pro | Glu | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | His | Glu | Val | Trp | His | Gly | Tyr | Val | Pro | Asp | Leu | Lys | Pro | Gly | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Tyr | Gly | Tyr | Arg | Val | Tyr | Gly | Pro | Tyr | Asp | Pro | Glu | Asn | Gly | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Phe | Asn | Pro | Asn | Lys | Leu | Leu | Ile | Asp | Pro | Tyr | Ala | Arg | Glu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Gly | Asp | Ile | Glu | Trp | Asn | Asp | Ala | His | Phe | Gly | Tyr | Glu | Leu | Gly |
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Asp | Glu | Leu | Asp | Leu | Ser | Phe | Asp | Thr | Arg | Asp | Ser | Ala | Pro | Phe |
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| Thr | Pro | Lys | Cys | Lys | Val | Ile | Asp | Pro | Asn | Ala | Val | Asp | Trp | Gln | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Arg | Arg | Pro | Asp | Ile | Pro | Trp | Pro | His | Thr | Val | Val | Tyr | Glu | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| His | Val | Lys | Gly | Phe | Thr | Gln | Leu | Asn | Pro | Ala | Ile | Gln | Pro | Glu | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Gly | Thr | Phe | Glu | Gly | Met | Gly | His | Lys | Ala | Ser | Val | Glu | Tyr | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Ser | Leu | Gly | Ile | Thr | Ser | Val | Glu | Leu | Leu | Pro | Val | His | Trp | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Asp | Asp | Gln | His | Leu | Leu | Asp | Arg | Gly | Leu | Lys | Asn | Phe | Trp | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Tyr | Asn | Ser | Leu | Gly | Phe | Phe | Ala | Pro | Ala | Ser | Arg | Tyr | Tyr | Gly | Pro |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ala | Gly | Ile | Gln | Gly | Phe | Arg | Asp | Met | Val | Arg | Ala | Tyr | His | Asp | Ala |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Gly | Ile | Glu | Val | Ile | Leu | Asp | Val | Val | Tyr | Asn | His | Thr | Ala | Glu | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asn | Glu | Leu | Gly | Pro | Thr | Leu | Ser | Phe | Lys | Gly | Ile | Asp | Asn | Phe | Cys |
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| Tyr | Tyr | Arg | Thr | Met | Pro | Asp | Gln | His | Arg | Tyr | Tyr | Ile | Asn | Asp | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Thr | Gly | Asn | Thr | Val | Asn | Thr | Ser | His | Pro | Arg | Val | Leu | Gln | Met |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Val | Met | Asp | Ser | Leu | Arg | Tyr | Trp | Ala | Glu | Ser | Met | Gln | Ile | Asp | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Phe | Arg | Phe | Asp | Leu | Gly | Thr | Ile | Leu | Gly | Arg | Glu | Pro | Glu | Gly | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asp | Pro | Arg | Gly | Gly | Phe | Phe | Asp | Ala | Val | Thr | Gln | Asp | Pro | Val | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Lys | Leu | Lys | Leu | Ile | Gly | Glu | Pro | Trp | Asp | Ile | Gly | Pro | Gly | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Tyr | Gln | Val | Gly | Gly | Phe | Pro | Pro | Gly | Trp | Gly | Glu | Trp | Asn | Asp | Lys |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Tyr | Arg | Asp | Thr | Val | Arg | Glu | Tyr | Trp | Lys | Gly | Asp | Asn | Val | Ser | Asn |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Phe | Ala | Ala | Arg | Leu | Leu | Gly | Ser | Gly | Asp | Leu | Tyr | Asp | Leu | Arg |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gly | Arg | Arg | Pro | Trp | Ala | Ser | Val | Asn | Phe | Ile | Thr | Ala | His | Asp | Gly |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Phe | Thr | Leu | Asn | Asp | Leu | Val | Ser | Tyr | Asn | Glu | Lys | His | Asn | Ala | Asp |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asn | Gly | Glu | Asp | Asn | Asn | Asp | Gly | His | Asn | Asp | Asn | Arg | Ser | Tyr | Asn |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Tyr | Gly | Glu | Glu | Gly | Pro | Thr | Glu | Asn | Pro | Asp | Ile | Ile | Ala | Thr | Arg |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Glu | Arg | Gln | Lys | Arg | Asn | Phe | Leu | Thr | Thr | Leu | Phe | Phe | Ser | His | Gly |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Thr | Pro | Met | Leu | Leu | Ala | Gly | Asp | Glu | Phe | Gly | Arg | Thr | Gln | Lys | Gly |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Asn | Asn | Asn | Gly | Tyr | Cys | Gln | Asp | Ser | Glu | Ile | Ser | Trp | Val | Asn | Trp |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Glu | Gly | Leu | Thr | Glu | Asn | Asp | Glu | Lys | Leu | Arg | Asp | Phe | Thr | Arg | Arg |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Leu | Ile | Ala | Leu | Arg | Ala | Thr | Gln | Pro | Leu | Leu | Arg | Arg | Glu | Asn | Trp |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Arg | Asp | Gly | Leu | Glu | Ile | Arg | Trp | Phe | Asn | Ala | Gly | Gly | Gly | Pro | Gln |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Gln | Ser | Glu | Gln | Trp | Asp | Glu | Gly | Ser | Thr | Leu | Gly | Leu | Ala | Ile | Ser |

| | | |
|-------------------------|---------------------|-------------------------|
| 610 | 615 | 620 |
| Arg Pro Asp Leu Glu Gln | Glu Glu Gly Val Trp | Gln Asp Val Leu Met |
| 625 | 630 | 635 |
| Leu Phe Asn Pro Phe | Glu Gly Thr Val Pro | Phe Gln Ile Pro Gln Phe |
| 645 | 650 | 655 |
| Gly Glu Gly Gly Trp Val | Leu Glu Leu Ser Thr | Ser Glu Asp Ala Thr |
| 660 | 665 | 670 |
| Thr Gly Glu Ile Ile Thr | Glu Ser Val Asp Tyr | Glu Leu Ala Gly Arg |
| 675 | 680 | 685 |
| Ser Ile Thr Leu Phe Arg | Arg Pro | |
| 690 | 695 | |

<210> 7571

<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 7571

| | | | | |
|---|-----|-----|-----|-----|
| Asn Ala Leu Ser Glu Cys Thr Gly Met Ser Ala Met Thr Asp Pro Asp | 1 | 5 | 10 | 15 |
| Phe Asn Leu Leu Ile Ala Leu Asp Ile Leu Leu Ser Glu Ala Ser Val | 20 | 25 | 30 | |
| Ala Gly Ala Ala Arg Arg Leu Asn Leu Ser Thr Ser Ala Met Ser Arg | 35 | 40 | 45 | |
| Thr Leu Ser Arg Leu Arg Asp Val Thr Gly Asp Pro Ile Leu Val Arg | 50 | 55 | 60 | |
| Ala Gly Arg Asn Met Val Leu Thr Pro Trp Ala Glu Ala Thr Arg Asp | 65 | 70 | 75 | 80 |
| Arg Ala Arg Arg Ala Val His Glu Thr Arg Ala Val Leu Gln Pro Ser | 85 | 90 | 95 | |
| Thr Glu Thr Phe Ser Ala Arg Ser Leu Ala Arg Leu Phe Thr Ile Arg | 100 | 105 | 110 | |
| Ala Asn Asp Gly Phe Val Val Ala Phe Gly Pro Ala Leu Ile Ala Ala | 115 | 120 | 125 | |
| Val Ala Asp Ala Ala Pro Asp Val Cys Ile Arg Phe Ala Pro Lys Pro | 130 | 135 | 140 | |
| Glu Lys Thr Ser Arg Tyr Leu Arg Glu Gly Leu Val Asp Leu Glu Ile | 145 | 150 | 155 | 160 |
| Gly Val Gln Ser Asn Met Gly Pro Glu Ile Arg Leu Gln Arg Leu Phe | 165 | 170 | 175 | |
| Glu Asp Arg Phe Val Gly Val Val Arg Lys Gly His Pro Leu Ala Asn | 180 | 185 | 190 | |
| Gln Ala Glu Ile Gly Val Lys Asp Tyr Val Ala Trp Gly His Val Val | 195 | 200 | 205 | |
| Ala Ser Pro Glu Gly Ala Leu His Gly Ser Val Asp Asp Ala Leu Ala | 210 | 215 | 220 | |
| Glu Leu Gly Thr Lys Arg Lys Ile Ala Ser Val Val Pro Gly Phe Pro | 225 | 230 | 235 | 240 |
| Thr Ala Leu Ser Val Ala Leu Ala Ser Asp Leu Val Ala Met Ile Pro | 245 | 250 | 255 | |
| Ala Leu Tyr Leu Leu Asn Gln Gln Ile Thr Glu Gln Leu His Val Phe | 260 | 265 | 270 | |
| Glu Leu Pro Phe Lys Ser Arg Arg Ile Thr Val Ser Gln Met Trp His | 275 | 280 | 285 | |
| Pro Arg Met Glu Arg Asp Pro Gly His Arg Trp Leu Arg Glu Gln Ile | 290 | 295 | 300 | |
| Leu Ala Ile Cys Gly Val Glu Arg Ser Asp Met Ile Lys Ser Ala Val | 305 | 310 | 315 | 320 |

<210> 7572
 <211> 98
 <212> PRT
 <213> Enterobacter cloacae

<400> 7572
 Ser Asn Cys Tyr Thr Arg Gly Ile Pro Met Lys Ser Asp Val Gln Leu
 1 5 10 15
 Asn Leu Arg Ala Lys Glu Ser Gln Arg Ala Leu Ile Asp Ala Ala Ala
 20 25 30
 Glu Ile Leu His Lys Ser Arg Thr Asp Phe Ile Leu Glu Met Ala Cys
 35 40 45
 Gln Ala Ala Glu Asn Val Ile Leu Asp Arg Arg Val Phe Asn Phe Asn
 50 55 60
 Asp Glu Gln Tyr Ala Glu Phe Ile Asp Met Leu Asp Ala Pro Val Ala
 65 70 75 80
 Asp Asp Pro Ala Ile Glu Lys Leu Leu Ala Arg Lys Pro Gln Trp Asp
 85 90 95
 Val

<210> 7573
 <211> 596
 <212> PRT
 <213> Enterobacter cloacae

<400> 7573
 Met Glu Phe Arg Thr Cys Arg Arg His Trp Gly Ala Glu Phe Ile Ser
 1 5 10 15
 Asp Asp Val Val Arg Phe Arg Val Trp Ala Glu Gly Gln Lys Asp Leu
 20 25 30
 Thr Leu Arg Leu Thr Asp Thr Asp Ile Pro Met Ala Ala Val Gly Asp
 35 40 45
 Gly Trp Phe Gln Ile Asp Val Pro Gly Val Arg His Gly Thr Thr Tyr
 50 55 60
 Gln Phe Val Leu Gln Asp Gly Met Ala Val Pro Asp Pro Ala Ser Arg
 65 70 75 80
 Ala Gln Gln Ala Asp Val Asn Gly Pro Ser Val Val Ile Asp Pro Arg
 85 90 95
 Arg Ser Leu Pro Ala Gln Arg Glu Trp Gln Gly Arg Pro Trp Glu Glu
 100 105 110
 Thr Val Ile Tyr Glu Leu His Ile Gly Thr Phe Thr Gly Glu Gly Thr
 115 120 125
 Phe Arg Ser Ala Ile Asp Lys Leu Pro Tyr Leu Ala Glu Leu Gly Ile
 130 135 140
 Thr Gln Leu Glu Val Met Pro Val Ser Gln Phe Gly Gly Ala Arg Gly
 145 150 155 160
 Trp Gly Tyr Asp Gly Val Leu Leu Tyr Ala Pro His Ser Ala Tyr Gly
 165 170 175
 Thr Pro Asp Asp Phe His Ala Phe Ile Asp Ala Ala His Ala Leu Gly
 180 185 190
 Leu Ser Val Val Leu Asp Ile Val Leu Asn His Phe Gly Pro Glu Gly
 195 200 205
 Asn Tyr Leu Pro Leu Leu Ser Pro Ala Phe Phe His Gln Asp Arg Met
 210 215 220
 Thr Pro Trp Gly Asn Gly Ile Ala Tyr Glu Val Glu Ala Val Arg Gln
 225 230 235 240
 Tyr Ile Ala Glu Ala Pro Leu Phe Trp Leu Ser Glu Tyr His Leu Asp
 245 250 255
 Gly Leu Arg Phe Asp Ala Ile Asp Gln Ile His Asp Asp Ala Glu Thr
 260 265 270

His Ile Leu Pro Glu Ile Ala Gln Arg Ile Arg Asp Ala Phe Pro Asp
 275 280 285
 Arg His Ile His Leu Thr Thr Glu Asp Ser Arg Asn Val Ile Phe Leu
 290 295 300
 His Pro Arg Asp Glu His Gly Gln Thr Pro Leu Phe Thr Ala Glu Trp
 305 310 315 320
 Asn Asp Asp Phe His Asn Ala Ala His Val Phe Ala Thr Gly Glu Ser
 325 330 335
 His Ala Tyr Tyr Gln Asp Phe Ala Phe Glu Pro Glu Lys Lys Leu Ala
 340 345 350
 Arg Ala Leu Ala Glu Gly Phe Val Tyr Gln Gly Glu Ile Ser Leu Gln
 355 360 365
 Thr Gly Lys Ser Arg Gly Val Glu Cys Arg Glu Gln Pro Pro Gln Phe
 370 375 380
 Phe Val Asp Phe Ile Gln Asn His Asp Gln Val Gly Asn Arg Ala Gln
 385 390 395 400
 Gly Glu Arg Leu Ile Ser Leu Ala Gly Ala Asp Lys Thr Arg Val Leu
 405 410 415
 Phe Ala Ala Leu Leu Leu Ser Pro His Ile Pro Leu Leu Phe Met Gly
 420 425 430
 Glu Glu Tyr Gly Glu Thr His Pro Phe Leu Phe Phe Thr Asp Phe His
 435 440 445
 Gly Asp Leu Ala Lys Ala Val Arg Glu Gly Arg Ala Lys Glu Phe Thr
 450 455 460
 Gly His Ala Gly His Asp Glu Thr Val Pro Asp Pro Asn Asp Leu Asn
 465 470 475 480
 Thr Phe Met Arg Ser Lys Leu Asp Trp Asn Lys Ala Asp Thr Glu Glu
 485 490 495
 Gly Arg Ala Trp Leu His Val Thr Arg Glu Leu Ile Val Leu Arg Gln
 500 505 510
 Arg Phe Ile Val Pro Leu Leu Lys Gln Arg Gly Thr Val Glu Gly Asn
 515 520 525
 Val Leu Gln Thr Ala Leu Gly Met Val Ala Val Ser Trp Arg Phe Pro
 530 535 540
 Ser Gly Thr Leu Ser Leu Ala Leu Asn Ile Gly Lys Lys Pro Leu Ala
 545 550 555 560
 Leu Pro Asp Leu Pro Gly Lys Thr Ile Phe Ser Trp Pro Glu Ala Val
 565 570 575
 Glu Asn Leu Pro Pro Asn Ser Ile Val Val Arg Phe Ala Asp Gly Glu
 580 585 590
 Ala Ala Leu
 595

<210> 7574

<211> 221

<212> PRT

<213> Enterobacter cloacae

<400> 7574

Cys Phe Ile Ser Ala Asp Pro Ala Ser Ser Arg Gly Glu Asp Leu Val
 1 5 10 15
 Gly Lys Lys Val Gly Met Thr Arg Ile Phe Thr Glu Asp Gly Val Ser
 20 25 30
 Ile Pro Val Thr Val Ile Glu Val Glu Ala Asn Arg Val Thr Gln Val
 35 40 45
 Lys Asp Leu Ala Asn Asp Gly Tyr Arg Ala Ile Gln Val Thr Thr Gly
 50 55 60
 Ala Lys Lys Ala Asn Arg Val Thr Lys Pro Glu Ala Gly His Phe Ala
 65 70 75 80
 Lys Ala Gly Val Glu Ala Gly Arg Gly Leu Trp Glu Phe Arg Leu Ala
 85 90 95

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gly | Glu | Glu | Phe | Thr | Val | Gly | Gln | Asp | Ile | Ser | Val | Glu | Leu | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Asp | Val | Lys | Lys | Val | Asp | Val | Thr | Gly | Thr | Ser | Lys | Gly | Lys | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Ala | Gly | Thr | Val | Lys | Arg | Trp | Asn | Phe | Arg | Thr | Gln | Asp | Ala | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Gly | Asn | Ser | Leu | Ser | His | Arg | Val | Pro | Gly | Ser | Ile | Gly | Gln | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Thr | Pro | Gly | Lys | Val | Phe | Lys | Gly | Lys | Lys | Met | Ala | Gly | Gln | Leu |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Gly | Asn | Glu | Arg | Val | Thr | Val | Gln | Ser | Leu | Asp | Val | Val | Arg | Val | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Glu | Arg | Asn | Leu | Leu | Leu | Val | Lys | Gly | Ala | Val | Pro | Gly | Ala | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Ser | Asp | Leu | Ile | Val | Lys | Pro | Ala | Val | Lys | Ala | | | | |
| | 210 | | | | | 215 | | | | | 220 | | | | |

<210> 7575

<211> 123

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (101)

<400> 7575

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Lys | Gly | Ile | Ala | Met | Glu | Leu | Val | Leu | Lys | Asp | Ala | Gln | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Thr | Val | Ser | Glu | Thr | Thr | Phe | Gly | Arg | Asp | Phe | Asn | Glu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Val | His | Gln | Val | Val | Val | Ala | Tyr | Ala | Ala | Gly | Ala | Arg | Gln | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Arg | Ala | Gln | Lys | Thr | Arg | Ala | Glu | Val | Thr | Gly | Ser | Gly | Lys | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Trp | Arg | Gln | Lys | Gly | Thr | Gly | Arg | Ala | Arg | Ser | Gly | Ser | Ile | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Pro | Ile | Trp | Arg | Ser | Gly | Gly | Val | Asp | Phe | Ala | Ala | Arg | Pro | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Thr | Gln | Ser | Xaa | Val | Asn | Lys | Lys | Met | Leu | Arg | Gly | Ala | Leu | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ile | Leu | Val | Gln | Leu | Gly | Thr | Ser | Gly | Ser | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 7576

<211> 307

<212> PRT

<213> Enterobacter cloacae

<400> 7576

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Gln | His | Asp | Gly | Ser | Leu | Arg | Ala | Ala | Ser | Met | Phe | Lys | Gln | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Gln | Val | Thr | Lys | Pro | Gly | Ile | Ile | Phe | Gly | Asn | Leu | Ile | Ser | Val |
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Ile | Gly | Gly | Phe | Leu | Leu | Ala | Ser | Lys | Gly | Ser | Ile | Asp | Tyr | Thr | Leu |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Phe | Ile | Tyr | Thr | Leu | Val | Gly | Val | Ser | Leu | Val | Val | Ala | Ser | Gly | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Phe | Asn | Asn | Tyr | Ile | Asp | Met | Asp | Ile | Asp | Lys | Lys | Met | Glu | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Lys | Asn | Arg | Val | Leu | Val | Lys | Gly | Leu | Ile | Ala | Pro | Ser | Val | Ser |


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<210> 7577
<211> 458
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|----------|-----|-----|-----|----------|-----|-----|-----|-----------|-----------|-----|-----|-----|-----|-----------|-----|
| Thr 1 | Glu | Val | Val | Met 5 | Asn | Asp | Tyr | Lys | Met 10 | Thr | Pro | Gly | Glu | Leu 15 | Arg |
| Ala | Thr | Trp | Gly | Leu | Gly | Thr | Val | Phe 25 | Ser | Leu | Arg | Met | Leu | Gly | Met |
| | | | 20 | | | | | | | | | | 30 | | |
| Phe | Met | Val | Leu | Pro | Val | Leu | Thr | Thr | Tyr | Gly | Met | Ala | Leu | Gln | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Glu | Ala | Leu | Ile | Gly | Leu | Ala | Ile | Gly | Ile | Tyr | Gly | Leu | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Ala | Ile | Phe | Gln | Ile | Pro | Phe | Gly | Leu | Leu | Ser | Asp | Arg | Val | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Lys | Pro | Leu | Ile | Val | Gly | Gly | Leu | Leu | Val | Phe | Val | Leu | Gly | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Ile | Ala | Ala | Leu | Ser | His | Ser | Ile | Trp | Gly | Ile | Ile | Leu | Gly | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | Gln | Gly | Ser | Gly | Ala | Ile | Ala | Ala | Ala | Val | Met | Ala | Leu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Asp | Leu | Thr | Arg | Glu | Gln | Asn | Arg | Thr | Lys | Ala | Met | Ala | Phe | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Val | Ser | Phe | Gly | Val | Thr | Phe | Ala | Ile | Ala | Met | Val | Leu | Gly | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Ile | Thr | His | Ser | Leu | Gly | Leu | His | Ala | Leu | Phe | Trp | Met | Ile | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Met | Leu | Ala | Thr | Ile | Gly | Ile | Ala | Leu | Thr | Leu | Trp | Val | Val | Pro | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Lys | Asn | His | Val | Leu | Asn | Arg | Glu | Ser | Gly | Met | Val | Lys | Gly | Cys |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 165 | | | | 170 | | | | 175 | | | |
| Val | Asp | Ile | Pro | Leu | Gln | Leu | Ser | Gly | Leu | Thr | Pro | Glu | Gln | Leu | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Ile | Arg | Ile | His | Asp | Ile | Gln | Pro | Ala | Ala | Gln | | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | |

<210> 7579

<211> 677

<212> PRT

<213> Enterobacter cloacae

<400> 7579

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Arg | Lys | Pro | Leu | Thr | Lys | Gly | Pro | Arg | Lys | Lys | Met | Phe | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Leu | Thr | Leu | Asp | Ala | Val | Pro | Tyr | His | Glu | Pro | Ile | Ile | Met | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Val | Ala | Ala | Ile | Ile | Ile | Gly | Gly | Ala | Ala | Leu | Val | Gly | Leu | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Tyr | Phe | Gly | Lys | Trp | Ser | Tyr | Leu | Trp | Asn | Glu | Trp | Leu | Thr | Ser |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Asp | His | Lys | Lys | Leu | Gly | Ile | Met | Tyr | Cys | Ile | Val | Gly | Ile | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Met | Leu | Ile | Arg | Gly | Phe | Ala | Asp | Ala | Ile | Met | Met | Arg | Ser | Gln | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Leu | Ala | Ser | Ala | Gly | Glu | Ala | Gly | Phe | Leu | Pro | Pro | His | His | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Gln | Ile | Phe | Thr | Ala | His | Gly | Val | Ile | Met | Ile | Phe | Phe | Val | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Pro | Leu | Val | Ile | Gly | Leu | Met | Asn | Val | Val | Val | Pro | Leu | Gln | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Ala | Arg | Asp | Val | Ala | Phe | Pro | Phe | Leu | Asn | Asn | Leu | Ser | Phe | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Thr | Val | Val | Gly | Val | Ile | Leu | Val | Asn | Leu | Ser | Leu | Gly | Val | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Glu | Phe | Ala | Gln | Thr | Gly | Trp | Leu | Ala | Tyr | Pro | Pro | Leu | Ser | Gly | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Tyr | Ser | Pro | Gly | Val | Gly | Val | Asp | Tyr | Trp | Ile | Trp | Ala | Leu | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Ser | Gly | Val | Gly | Thr | Thr | Leu | Thr | Gly | Ile | Asn | Phe | Phe | Val | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Leu | Lys | Met | Arg | Ala | Pro | Gly | Met | Thr | Met | Phe | Lys | Met | Pro | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Thr | Trp | Ala | Ser | Leu | Cys | Ala | Asn | Val | Leu | Ile | Ile | Ala | Ser | Phe |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Ile | Leu | Thr | Val | Thr | Ile | Ala | Leu | Leu | Thr | Leu | Asp | Arg | Tyr | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Thr | His | Phe | Phe | Thr | Asn | Asp | Met | Gly | Gly | Asn | Met | Met | Met | Tyr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Asn | Leu | Ile | Trp | Ala | Trp | Gly | His | Pro | Glu | Val | Tyr | Ile | Leu | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Pro | Val | Phe | Gly | Val | Phe | Ser | Glu | Ile | Ala | Ala | Thr | Phe | Ser | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Lys | Arg | Leu | Phe | Gly | Tyr | Thr | Ser | Leu | Val | Trp | Ala | Thr | Val | Cys | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Thr | Val | Leu | Ser | Phe | Ile | Val | Trp | Leu | His | His | Phe | Phe | Thr | Met | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Gly | Ala | Asn | Val | Asn | Ala | Phe | Phe | Gly | Ile | Thr | Thr | Met | Ile | Ile |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Ile | Pro | Thr | Gly | Val | Lys | Ile | Phe | Asn | Trp | Leu | Phe | Thr | Met | Tyr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gln | Gly | Arg | Ile | Val | Phe | His | Ser | Ala | Met | Leu | Trp | Thr | Ile | Gly | Phe |

385 390 395 400
 Ile Val Thr Phe Ser Val Gly Gly Met Thr Gly Val Leu Leu Ala Val
 405 410 415
 Pro Gly Ala Asp Phe Val Leu His Asn Ser Leu Phe Leu Ile Ala His
 420 425 430
 Phe His Asn Val Ile Ile Gly Gly Val Val Phe Gly Cys Phe Ala Gly
 435 440 445
 Val Thr Tyr Trp Trp Pro Lys Ala Phe Gly Phe Thr Leu Asn Glu Lys
 450 455 460
 Trp Gly Lys Arg Ala Phe Trp Phe Trp Ile Ile Gly Phe Phe Val Ala
 465 470 475 480
 Phe Met Pro Leu Tyr Val Leu Gly Phe Met Gly Met Thr Arg Arg Leu
 485 490 495
 Ser Gln Gln Ile Asp Pro Gln Phe His Pro Met Leu Met Ile Ala Ala
 500 505 510
 Gly Gly Ala Ala Leu Ile Ala Cys Gly Ile Leu Cys Gln Leu Ile Gln
 515 520 525
 Tyr Tyr Val Ser Ile Arg Asp Arg Asn Leu Asn Arg Asp Leu Thr Gly
 530 535 540
 Asp Pro Trp Gly Gly Arg Thr Leu Glu Trp Ser Thr Ser Ser Pro Pro
 545 550 555 560
 Pro Phe Tyr Asn Phe Ala Val Val Pro His Ile His Glu Arg Asp Ala
 565 570 575
 Phe Trp Glu Met Lys Glu Lys Gly Glu Ala Tyr Lys Gln Pro Glu His
 580 585 590
 Tyr Glu Glu Ile His Met Pro Lys Asn Ser Gly Ala Gly Ile Val Ile
 595 600 605
 Ala Ala Phe Ala Thr Val Phe Gly Phe Ala Met Ile Trp His Ile Trp
 610 615 620
 Trp Met Ala Ile Val Gly Phe Ala Gly Ile Val Ile Ser Trp Ile Val
 625 630 635 640
 Lys Ser Phe Asp Glu Asp Val Asp Tyr Tyr Val Pro Val Arg Glu Val
 645 650 655
 Glu Lys Leu Glu Asn Gln His Phe Asp Glu Ile Ser Lys Ala Gly Leu
 660 665 670
 Lys Asn Gly Asn
 675

<210> 7580

<211> 141

<212> PRT

<213> Enterobacter cloacae

<400> 7580

Pro Tyr Pro Tyr Tyr Val Pro Glu Pro Val Leu Ala Leu Pro Gly Arg
 1 5 10 15
 Gly Met Asp Leu Cys Val Leu Cys Cys Leu Ser Asp Gly Gly Asp Val
 20 25 30
 Met Ser His Ser Asn Asp His Gly Ala Ser His Gly Ser Val Lys Thr
 35 40 45
 Tyr Met Thr Gly Phe Ile Leu Ser Ile Ile Leu Thr Val Ile Pro Phe
 50 55 60
 Trp Met Val Met Asn Gly Ser Ala Ser Lys Pro Val Ile Leu Gly Ala
 65 70 75 80
 Ile Leu Val Thr Ala Val Ile Gln Ile Leu Val His Leu Val Cys Phe
 85 90 95
 Leu His Met Asn Thr Lys Ser Asp Glu Gly Trp Asn Met Thr Ala Phe
 100 105 110
 Ile Phe Thr Val Ile Ile Ile Ala Ile Leu Val Val Gly Ser Ile Trp
 115 120 125
 Ile Met Trp Asn Leu Asn Tyr Asn Met Met Val His

130

135

140

<210> 7581

<211> 307

<212> PRT

<213> Enterobacter cloacae

<400> 7581

Gly Gly Thr Met Lys Val Thr Val Leu Gly Cys Gly Ala Leu Gly Gln
 1 5 10 15
 Leu Trp Leu Thr Ala Leu Cys Lys Gln Gly His Asp Val Gln Gly Trp
 20 25 30
 Leu Arg Ile Pro Gln Pro Tyr Cys Ser Val Asn Val Met Gly Thr Asp
 35 40 45
 Gly Ser Ile Phe Asn Glu Ser Leu Thr Ala Asn Asp Pro Glu Phe Leu
 50 55 60
 Ala Thr Ser Asp Leu Leu Leu Val Thr Leu Lys Ala Trp Gln Val Ser
 65 70 75 80
 Asp Ala Val Lys Ser Leu Ala Ala Gln Leu Pro Glu Ser Thr Pro Ile
 85 90 95
 Leu Leu Ile His Asn Gly Met Gly Thr Ile Glu Glu Leu Lys Ser Val
 100 105 110
 Arg Gln Pro Leu Leu Met Gly Thr Thr Thr His Ala Ala Arg Arg Asp
 115 120 125
 Gly Asn Val Ile Ile His Val Ala Ser Gly Ile Thr His Ile Gly Pro
 130 135 140
 Ala Arg Glu Gln Pro Gly Asp Tyr Ser Tyr Leu Ala Asp Thr Leu Gln
 145 150 155 160
 Ser Thr Leu Pro Asp Val Ala Trp His Asn Asn Ile Arg Ala Glu Leu
 165 170 175
 Trp Arg Lys Leu Ala Val Asn Cys Ala Ile Asn Pro Leu Thr Ala Leu
 180 185 190
 Leu Asp Cys Pro Asn Gly Glu Leu Arg Gln His Pro Asp Arg Val Ala
 195 200 205
 Leu Ile Cys Arg Glu Val Ala Ala Val Ile Glu Arg Glu Gly Tyr His
 210 215 220
 Thr Ser Glu Ser Asp Leu Arg Tyr Tyr Val Asp Gln Val Ile Glu Ser
 225 230 235 240
 Thr Ala Glu Asn Ile Ser Ser Met Leu Gln Asp Ile Arg Ala Met Arg
 245 250 255
 His Thr Glu Ile Asp Tyr Ile Thr Gly Tyr Leu Leu Lys Arg Ala Arg
 260 265 270
 Ala His Gly Ile Thr Val Ala Glu Asn Ser Arg Leu Phe Glu Leu Val
 275 280 285
 Lys Arg Lys Glu Ser Glu Tyr Glu Arg Ile Gly Thr Gly Met Pro Arg
 290 295 300
 Pro Trp
 305

<210> 7582

<211> 335

<212> PRT

<213> Enterobacter cloacae

<400> 7582

Thr Tyr Cys Leu Asn Ser Arg Ser Gly Thr Met Gln Tyr Thr Thr Leu
 1 5 10 15
 Gly Lys Thr Asp Leu Lys Val Ser Arg Leu Cys Leu Gly Cys Met Thr
 20 25 30
 Phe Gly Glu Pro Asp Arg Gly Asn His Ala Trp Thr Leu Pro Glu Glu
 35 40 45

Ser Ser Arg Pro Ile Ile Lys Arg Ala Ile Asp Gly Gly Ile Asn Phe
 50 55 60
 Phe Asp Thr Ala Asn Ser Tyr Ser Asp Gly Ser Ser Glu Glu Ile Val
 65 70 75 80
 Gly Arg Ala Leu Arg Asp Phe Ala Arg Arg Asp Asp Val Val Val Ala
 85 90 95
 Thr Lys Val Tyr Tyr Pro Ser Gly Asp Leu Ala Glu Gly Leu Ser Arg
 100 105 110
 Ala Gln Ile Leu Arg Ser Ile Asp Asp Ser Leu Arg Arg Leu Asn Met
 115 120 125
 Asp Tyr Val Asp Leu Leu Gln Ile His Arg Trp Asp Tyr Asn Thr Pro
 130 135 140
 Ile Glu Glu Thr Leu Glu Ala Leu Asn Asp Val Val Lys Ala Gly Lys
 145 150 155 160
 Ala Arg Tyr Ile Gly Ala Ser Ser Met His Ala Ser Gln Phe Ala Gln
 165 170 175
 Ala Leu Asp Leu Gln Ala Gln His Gly Trp Ala Arg Phe Val Thr Met
 180 185 190
 Gln Asp His Tyr Asn Leu Ile Tyr Arg Glu Glu Glu Arg Glu Met Leu
 195 200 205
 Pro Leu Cys Tyr Gln Glu Gly Val Ala Val Ile Pro Trp Ser Pro Leu
 210 215 220
 Ala Arg Gly Arg Leu Thr Arg Pro Trp Gly Glu Thr Thr Ala Arg Leu
 225 230 235 240
 Val Ser Asp Glu Val Gly Lys Asn Leu Tyr Asp Asp Thr Glu Thr Ser
 245 250 255
 Asp Ala Leu Ile Ala Glu Arg Leu Ala Gly Ile Ala Asp Asp Ile Gly
 260 265 270
 Ala Thr Arg Ala Gln Val Ala Leu Ala Trp Leu Leu Ser Lys Arg Gly
 275 280 285
 Val Ala Ala Pro Ile Val Gly Thr Ser Arg Glu Glu Gln Leu Asp Glu
 290 295 300
 Leu Leu Ser Ala Val Asp Leu Ser Leu Thr Pro Glu Gln Ile Ala Glu
 305 310 315 320
 Leu Glu Thr Pro Tyr Gln Gln His Pro Val Val Gly Phe Lys
 325 330 335

<210> 7583

<211> 206

<212> PRT

<213> Enterobacter cloacae

<400> 7583

Lys Met Ala Thr Asp Thr Leu Ala His Ser Thr Ala His Ala His Glu
 1 5 10 15
 His Ala His His Asp Thr Gly Pro Thr Lys Val Phe Gly Phe Trp Ile
 20 25 30
 Tyr Leu Met Ser Asp Cys Ile Leu Phe Cys Cys Leu Phe Ala Thr Tyr
 35 40 45
 Ala Val Leu Val Asn Gly Thr Ala Gly Gly Pro Thr Gly Lys Asp Ile
 50 55 60
 Phe Glu Leu Pro Phe Val Leu Val Glu Thr Ala Leu Leu Leu Phe Ser
 65 70 75 80
 Ser Ile Thr Tyr Gly Met Ala Ala Ile Ala Met Tyr Lys Asn Asn Lys
 85 90 95
 Ser Gln Val Val Ser Trp Leu Ala Leu Thr Trp Leu Phe Gly Ala Gly
 100 105 110
 Phe Ile Gly Met Glu Ile Tyr Glu Phe His His Leu Ile Met Glu Gly
 115 120 125
 Phe Gly Pro Asp Arg Ser Gly Phe Leu Ser Ala Phe Phe Ala Leu Val
 130 135 140

Gly Thr His Gly Leu His Val Thr Ser Gly Leu Ile Trp Met Ala Val
 145 150 155 160
 Leu Met Phe Gln Ile Ser Arg Arg Gly Leu Thr Ser Thr Asn Arg Thr
 165 170 175
 Arg Ile Met Cys Leu Ser Leu Phe Trp His Phe Leu Asp Val Val Trp
 180 185 190
 Ile Cys Val Phe Ser Val Val Tyr Leu Met Gly Ala Met
 195 200 205

<210> 7584

<211> 203

<212> PRT

<213> Enterobacter cloacae

<400> 7584

Asn Glu Arg Arg Val Ser Met Ser Ala Ser Ala Leu Val Cys Leu Ala
 1 5 10 15
 Pro Gly Ser Glu Glu Thr Glu Ala Val Thr Thr Ile Asp Leu Leu Val
 20 25 30
 Arg Gly Gly Ile Lys Val Thr Thr Ala Ser Val Ala Ser Asp Gly Ser
 35 40 45
 Leu Ala Ile Thr Cys Ser Arg Gly Val Lys Ile Leu Ala Asp Ala Pro
 50 55 60
 Leu Val Gln Val Ala Asp Gly Asp Tyr Asp Ile Ile Val Leu Pro Gly
 65 70 75 80
 Gly Leu Lys Gly Ala Glu Cys Phe Arg Asp Ser Pro Leu Leu Val Glu
 85 90 95
 Thr Val Arg Gln Phe His Leu Ser Gly Arg Ile Val Ala Ala Ile Cys
 100 105 110
 Ala Ala Ala Gly Thr Val Leu Val Pro His Asp Ile Phe Pro Ile Gly
 115 120 125
 Asn Met Thr Gly Phe Pro Gly Leu Lys Asp Thr Ile Pro Glu Asp Gln
 130 135 140
 Trp Val Asp Lys Arg Val Val Trp Asp Pro Arg Val Asn Leu Leu Thr
 145 150 155 160
 Ser Gln Gly Pro Gly Thr Ala Ile Asp Phe Gly Leu Lys Ile Ile Asp
 165 170 175
 Leu Leu Val Gly Arg Glu Lys Ala Tyr Glu Val Ala Ser Ser Leu Val
 180 185 190
 Met Ala Ala Gly Ile Tyr Asn Tyr Tyr Glu
 195 200

<210> 7585

<211> 83

<212> PRT

<213> Enterobacter cloacae

<400> 7585

Phe Thr Met Pro Lys Lys Asn Asp Ala Pro Ala Ser Phe Glu Thr Ala
 1 5 10 15
 Leu Ser Glu Leu Glu Gln Ile Val Thr Arg Leu Glu Ser Gly Asp Leu
 20 25 30
 Pro Leu Glu Asp Ala Leu Asn Glu Phe Glu Arg Gly Val Gln Leu Ala
 35 40 45
 Arg Gln Gly Gln Val Lys Leu Gln Gln Ala Glu Gln Arg Val Gln Ile
 50 55 60
 Leu Leu Ser Asp Ser Glu Asp Ala Lys Thr Thr Pro Phe Thr Pro Asp
 65 70 75 80
 Ala Glu

<210> 7586
 <211> 300
 <212> PRT
 <213> Enterobacter cloacae

<400> 7586
 Met Asp Phe Ser Asn Ala Leu Gln Ala Arg Val Ile Arg Ala Asn Asp
 1 5 10 15
 Ala Leu Arg Arg Phe Ile Glu Pro Gln Pro Phe Gln Asn Thr Pro Leu
 20 25 30
 Val Glu Ala Met His Tyr Gly Ala Leu Leu Gly Gly Lys Arg Leu Arg
 35 40 45
 Pro Phe Leu Val Tyr Ala Thr Gly Asn Met Phe Gly Ile Ser Asp Asn
 50 55 60
 Thr Leu Asp Ala Pro Ala Ala Ala Val Glu Cys Ile His Ala Tyr Ser
 65 70 75 80
 Leu Ile His Asp Asp Leu Pro Ala Met Asp Asp Asp Asp Leu Arg Arg
 85 90 95
 Gly Gln Pro Thr Cys His Ile Lys Phe Gly Glu Ala Asn Ala Ile Leu
 100 105 110
 Ala Gly Asp Ala Leu Gln Thr Leu Ala Phe Ser Ile Leu Ser Asp Ala
 115 120 125
 Pro Met Val Glu Val Ser Asp Arg Asp Arg Leu Ala Met Val Ser Glu
 130 135 140
 Leu Ala Met Ala Ser Gly Val Ala Gly Met Cys Gly Gly Gln Ala Leu
 145 150 155 160
 Asp Leu Glu Ala Glu Gly Arg Gln Val Thr Leu Glu Gln Leu Glu Arg
 165 170 175
 Ile His Arg His Lys Thr Gly Ala Leu Ile Arg Ala Ala Val Arg Leu
 180 185 190
 Gly Ala Leu Ser Ala Gly Glu Arg Gly Arg Lys Ala Leu Pro Ile Leu
 195 200 205
 Asp Arg Tyr Ala Glu Ser Ile Gly Leu Ala Phe Gln Val Gln Asp Asp
 210 215 220
 Ile Leu Asp Val Val Gly Asp Thr Ala Thr Leu Gly Lys Arg Gln Gly
 225 230 235 240
 Ala Asp Gln Gln Leu Gly Lys Ser Thr Tyr Pro Ala Leu Leu Gly Leu
 245 250 255
 Glu His Ala Gln Arg Lys Ala Arg Asp Leu Ile Asp Asp Ala Arg Gln
 260 265 270
 Ser Leu Asn Glu Leu Ala Ala Gln Ser Leu Asp Thr Ser Ala Leu Glu
 275 280 285
 Ala Leu Ala Asp Tyr Ile Ile Gln Arg Asp Lys
 290 295 300

<210> 7587
 <211> 629
 <212> PRT
 <213> Enterobacter cloacae

<400> 7587
 Thr Ile Asn Leu Asp Glu Pro Leu Met Ser Phe Asp Ile Ala Lys Tyr
 1 5 10 15
 Pro Thr Leu Ala Leu Val Asp Ser Thr Gln Glu Leu Arg Leu Leu Pro
 20 25 30
 Lys Glu Ser Leu Pro Lys Leu Cys Asp Glu Leu Arg Arg Tyr Leu Leu
 35 40 45
 Asp Ser Val Ser Arg Ser Ser Gly His Phe Ala Ser Gly Leu Gly Thr
 50 55 60
 Val Glu Leu Thr Val Ala Leu His Tyr Val Tyr Asn Thr Pro Phe Asp
 65 70 75 80

Gln Leu Ile Trp Asp Val Gly His Gln Ala Tyr Pro His Lys Ile Leu
 85 90 95
 Thr Gly Arg Arg Asp Lys Ile Gly Thr Ile Arg Gln Lys Gly Gly Leu
 100 105 110
 His Pro Phe Pro Trp Arg Gly Glu Ser Glu Tyr Asp Val Leu Ser Val
 115 120 125
 Gly His Ser Ser Thr Ser Ile Ser Ala Gly Ile Gly Ile Ala Val Ala
 130 135 140
 Ala Glu Lys Glu Asn Lys Gln Arg Arg Thr Val Cys Val Ile Gly Asp
 145 150 155 160
 Gly Ala Ile Thr Ala Gly Met Ala Phe Glu Ala Met Asn His Ala Gly
 165 170 175
 Asp Ile Lys Pro Asp Met Leu Val Ile Leu Asn Asp Asn Glu Met Ser
 180 185 190
 Ile Ser Glu Asn Val Gly Ala Leu Asn Asn His Leu Ala Gln Leu Leu
 195 200 205
 Ser Gly Lys Leu Tyr Ser Ser Leu Arg Glu Gly Gly Lys Lys Val Phe
 210 215 220
 Ser Gly Val Pro Pro Ile Lys Glu Leu Leu Lys Arg Thr Glu Glu His
 225 230 235 240
 Ile Lys Gly Met Val Val Pro Gly Thr Leu Phe Glu Glu Leu Gly Phe
 245 250 255
 Asn Tyr Ile Gly Pro Val Asp Gly His Asp Val Leu Gly Leu Val Thr
 260 265 270
 Thr Leu Lys Asn Met Arg Asp Leu Lys Gly Pro Gln Phe Leu His Ile
 275 280 285
 Met Thr Lys Lys Gly Arg Gly Tyr Glu Pro Ala Glu Lys Asp Pro Ile
 290 295 300
 Thr Phe His Ala Val Pro Lys Phe Asp His Thr Ser Gly Cys Leu Pro
 305 310 315 320
 Lys Ser Ser Gly Gly Met Pro Ser Tyr Ser Lys Ile Phe Gly Asp Trp
 325 330 335
 Leu Cys Glu Thr Ala Ala Lys Asp Asn Met Leu Met Ala Val Thr Pro
 340 345 350
 Ala Met Arg Glu Gly Ser Gly Met Val Glu Phe Ser Lys Lys Tyr Pro
 355 360 365
 Asp Gln Tyr Phe Asp Val Ala Ile Ala Glu Gln His Ala Val Thr Phe
 370 375 380
 Ala Ala Gly Leu Ala Ile Gly Gly Tyr Lys Pro Val Val Ala Ile Tyr
 385 390 395 400
 Ser Thr Phe Leu Gln Arg Ala Tyr Asp Gln Val Ile His Asp Val Ala
 405 410 415
 Ile Gln Lys Leu Pro Val Leu Phe Ala Ile Asp Arg Ala Gly Ile Val
 420 425 430
 Gly Ala Asp Gly Gln Thr His Gln Gly Ala Phe Asp Leu Ser Phe Leu
 435 440 445
 Arg Cys Ile Pro Asp Met Val Ile Met Thr Pro Ser Asp Glu Asn Glu
 450 455 460
 Cys Arg Gln Met Leu Tyr Thr Gly Tyr His Tyr Gln Asp Gly Pro Cys
 465 470 475 480
 Ala Val Arg Tyr Pro Arg Gly Asn Ala Leu Gly Val Glu Leu Gln Pro
 485 490 495
 Leu Glu Lys Leu Asp Ile Gly Lys Ala Leu Val Lys Arg Arg Gly Glu
 500 505 510
 Lys Val Ala Ile Leu Asn Phe Gly Thr Leu Met Pro Glu Ala Ala Lys
 515 520 525
 Val Ala Glu Asn Leu Asn Ala Thr Leu Val Asp Met Arg Phe Val Lys
 530 535 540
 Pro Leu Asp Glu Ser Leu Ile Leu Ser Met Ala Glu Ser His Asp Val
 545 550 555 560
 Leu Val Thr Leu Glu Glu Asn Ala Ile Met Gly Gly Ala Gly Ser Gly

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 565 | | | | | 570 | | | | 575 | | | | |
| Val | Asn | Glu | Val | Leu | Met | Ala | Asn | Arg | Lys | Ala | Val | Pro | Val | Leu | Asn | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |
| Leu | Gly | Leu | Pro | Asp | His | Phe | Ile | Pro | Gln | Gly | Thr | Gln | Asp | Glu | Ala | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Arg | Ala | Asp | Ile | Gly | Leu | Asp | Ala | Ala | Gly | Ile | Glu | Ala | Lys | Ile | Arg | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Thr | Trp | Leu | Ala | | | | | | | | | | | | | | |
| 625 | | | | | | | | | | | | | | | | | |

<210> 7588

<211> 403

<212> PRT

<213> Enterobacter cloacae

<400> 7588

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Lys | Ser | Ser | Ile | Lys | Ser | Pro | Ile | Ser | Ala | Leu | Pro | Pro | Phe | Thr | Ala | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Ala | Ser | Lys | Thr | Ser | Lys | Ser | Leu | Ala | Lys | Arg | Ser | Pro | Ala | Tyr | Arg | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Ile | Lys | Thr | Met | His | Asp | Glu | Met | Tyr | Met | Ala | Arg | Ala | Met | Lys | Leu | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Ala | Gln | Arg | Gly | Arg | Phe | Thr | Thr | His | Pro | Asn | Pro | Asn | Val | Gly | Cys | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Val | Ile | Val | Lys | Asp | Gly | Glu | Ile | Val | Gly | Glu | Gly | Phe | His | Tyr | Arg | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Ala | Gly | Glu | Pro | His | Ala | Glu | Val | His | Ala | Leu | Arg | Met | Ala | Gly | Glu | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Lys | Ala | Arg | Gly | Ala | Thr | Ala | Tyr | Val | Thr | Leu | Glu | Pro | Cys | Ser | His | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| His | Gly | Arg | Thr | Pro | Pro | Cys | Cys | Glu | Ala | Leu | Ile | Ala | Ala | Gly | Val | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ser | Arg | Val | Val | Ala | Ala | Met | Gln | Asp | Pro | Asn | Pro | Gln | Val | Ala | Gly | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Arg | Gly | Leu | Tyr | Arg | Leu | Gln | Gln | Glu | Gly | Ile | Asp | Val | Ser | His | Gly | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Leu | Met | Met | Gln | Asp | Ala | Glu | Ala | Leu | Asn | Lys | Gly | Phe | Leu | Lys | Arg | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | |
| Met | Arg | Thr | Gly | Phe | Pro | Phe | Ile | Gln | Leu | Lys | Leu | Gly | Ala | Ser | Leu | | |
| | | | 180 | | | | | 185 | | | | | | 190 | | | |
| Asp | Gly | Arg | Thr | Ala | Met | Ala | Asn | Gly | Glu | Ser | Gln | Trp | Ile | Thr | Ser | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Pro | Gln | Ala | Arg | Arg | Asp | Val | Gln | Arg | Leu | Arg | Ala | Gln | Ser | His | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Ile | Leu | Thr | Ser | Ser | Glu | Thr | Val | Leu | Ala | Asp | Asp | Pro | Ala | Met | Thr | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Val | Arg | Trp | Glu | Glu | Leu | Asn | Ala | Asp | Thr | Gln | Ala | Leu | Tyr | Pro | Gln | | |
| | | | | 245 | | | | | 250 | | | | | | 255 | | |
| Glu | Asn | Leu | Arg | Gln | Pro | Leu | Arg | Ile | Ile | Ile | Asp | Ser | Gln | Asn | Arg | | |
| | | 260 | | | | | | 265 | | | | | 270 | | | | |
| Val | Thr | Pro | Glu | His | Arg | Ile | Val | Gln | Gln | Pro | Gly | Glu | Thr | Trp | Ile | | |
| | | 275 | | | | | 280 | | | | | | 285 | | | | |
| Ala | Arg | Thr | Lys | Glu | Asp | Thr | Arg | Glu | Trp | Pro | Gln | Gly | Val | Arg | Ser | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Ile | Thr | Val | Pro | Glu | His | Asn | Gly | His | Leu | Asp | Leu | Val | Val | Leu | Met | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Met | Leu | Leu | Gly | Lys | Gln | Gln | Val | Asn | Ser | Ile | Trp | Val | Glu | Ala | Gly | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Pro | Thr | Leu | Ala | Gly | Ala | Leu | Leu | Gln | Ala | Gly | Leu | Val | Asp | Glu | Leu | | |
| | | 340 | | | | | | 345 | | | | | 350 | | | | |
| Leu | Val | Tyr | Val | Ala | Pro | Lys | Leu | Leu | Gly | Asn | Asp | Ala | Arg | Gly | Leu | | |


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<210> 7589
<211> 160
<212> PRT
<213> Enterobacter cloacae
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<210> 7590
<211> 147
<212> PRT
<213> Enterobacter cloacae
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[illegible]

<210> 7591
 <211> 185
 <212> PRT
 <213> Enterobacter cloacae

<400> 7591

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ser | Arg | Tyr | Ala | Ser | Leu | Arg | Val | Leu | Cys | Asn | Ala | Thr | Lys | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Gly | Glu | Glu | Lys | Met | Pro | Ser | Phe | Asp | Ile | Val | Ser | Glu | Val | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Gln | Glu | Ala | Arg | Asn | Gly | Val | Glu | Asn | Ala | Val | Arg | Glu | Val | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Phe | Asp | Phe | Arg | Gly | Val | Glu | Ala | Thr | Ile | Glu | Leu | Asn | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Asn | Lys | Thr | Ile | Lys | Val | Leu | Ser | Glu | Ser | Asp | Phe | Gln | Val | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gln | Leu | Leu | Asp | Ile | Leu | Arg | Ala | Lys | Leu | Leu | Lys | Arg | Gly | Ile | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Thr | Ser | Leu | Asp | Val | Pro | Glu | Asp | Phe | Val | His | Ser | Gly | Lys | Thr |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Trp | Phe | Val | Glu | Ala | Lys | Leu | Lys | Gln | Gly | Ile | Glu | Ser | Ala | Val | Gln |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Lys | Lys | Ile | Val | Lys | Leu | Ile | Lys | Asp | Ser | Lys | Leu | Lys | Val | Gln | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Ile | Gln | Gly | Glu | Glu | Ile | Arg | Val | Thr | Gly | Lys | Ser | Arg | Asp | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Leu | Gln | Ser | Val | Met | Ala | Leu | Val | Arg | Gly | Gly | Asp | Leu | Gly | Gln | Pro |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Phe | Gln | Phe | Lys | Asn | Phe | Arg | Asp | | | | | | | | |
| | | 180 | | | | | | 185 | | | | | | | |

<210> 7592
 <211> 154
 <212> PRT
 <213> Enterobacter cloacae

<400> 7592

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | His | Arg | Met | His | Cys | Pro | Phe | Cys | Ser | Ala | Val | Asp | Thr | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ile | Asp | Ser | Arg | Leu | Val | Gly | Glu | Gly | Ser | Ser | Val | Arg | Arg | Arg |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Arg | Gln | Cys | Leu | Val | Cys | Asn | Glu | Arg | Phe | Thr | Thr | Phe | Glu | Val | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Leu | Val | Met | Pro | Arg | Val | Val | Lys | Ser | Asn | Asp | Val | Arg | Glu | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Asn | Glu | Glu | Lys | Leu | Arg | Ser | Gly | Met | Leu | Lys | Ala | Leu | Glu | Lys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Arg | Pro | Val | Ser | Ser | Asp | Asp | Val | Glu | Met | Ala | Leu | Asn | His | Ile | Lys |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ser | Tyr | Leu | Arg | Gly | Leu | Gly | Glu | Arg | Glu | Val | Pro | Ser | Lys | Met | Ile |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Gly | Asn | Leu | Val | Met | Glu | Gln | Leu | Lys | Lys | Leu | Asp | Lys | Val | Ala | Tyr |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ile | Arg | Phe | Ala | Ser | Val | Tyr | Arg | Ser | Phe | Glu | Asp | Ile | Lys | Glu | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Glu | Glu | Ile | Ala | Arg | Leu | Gln | Asp | | | | | | | |
| 145 | | | | | 150 | | | | | | | | | | |

<210> 7593
 <211> 325

<212> PRT

<213> Enterobacter cloacae

<400> 7593

Arg Met Ala Cys Gly Glu Phe Ser Leu Ile Ala Arg Tyr Phe Asp Arg
 1 5 10 15
 Val Arg Thr Ser Arg Leu Asp Val Glu Thr Gly Ile Gly Asp Asp Cys
 20 25 30
 Ala Leu Leu Asn Ile Pro Glu Lys Gln Thr Leu Ala Ile Ser Thr Asp
 35 40 45
 Thr Leu Val Cys Gly Arg His Phe Leu Pro Asp Ile Asp Pro Ala Asp
 50 55 60
 Leu Ala Tyr Lys Ala Leu Ala Val Asn Val Ser Asp Leu Ala Ala Met
 65 70 75 80
 Gly Ala Asp Pro Ala Trp Leu Thr Leu Ala Leu Thr Leu Pro Glu Val
 85 90 95
 Asp Glu Ala Trp Leu Glu Ala Phe Ser Asp Ala Leu Phe Glu Gln Leu
 100 105 110
 Asn Tyr Tyr Asp Met Gln Leu Ile Gly Gly Asp Thr Thr Ala Gly Pro
 115 120 125
 Leu Ser Met Thr Leu Ala Ile His Gly Tyr Val Pro Ala Gly Arg Ala
 130 135 140
 Leu Lys Arg Ser Gly Ala Lys Pro Gly Asp Trp Ile Tyr Val Thr Gly
 145 150 155 160
 Thr Pro Gly Asp Ser Ala Ala Gly Leu Ala Ile Leu Gln Asn Arg Leu
 165 170 175
 Thr Val Glu Asp Ala Asp Asp Ala Ala Tyr Leu Val Lys Arg His Leu
 180 185 190
 Arg Pro Thr Pro Arg Ile Leu His Gly Gln Ala Leu Arg Glu Arg Ala
 195 200 205
 Ser Ser Ala Ile Asp Leu Ser Asp Gly Leu Ile Ser Asp Leu Gly His
 210 215 220
 Ile Leu Lys Ala Ser Gly Val Gly Ala Arg Ile Asp Leu Asp Leu Phe
 225 230 235 240
 Pro Leu Ser Glu Pro Leu Arg Arg His Ala Glu Pro Glu Gln Ala Leu
 245 250 255
 Arg Trp Ala Leu Ser Gly Gly Glu Asp Tyr Glu Leu Cys Phe Thr Val
 260 265 270
 Pro Glu Leu Asn Arg Gly Thr Leu Asp Val Ala Leu Ala His Leu Gly
 275 280 285
 Ala Lys Phe Thr Cys Ile Gly Gln Val Met Pro Glu Ser Glu Gly Leu
 290 295 300
 Leu Phe Val Arg Asp Gly Ala Pro Val Thr Leu Asp Trp Lys Gly Tyr
 305 310 315 320
 Asp His Phe Ala
 325

<210> 7594

<211> 491

<212> PRT

<213> Enterobacter cloacae

<400> 7594

Ala Cys Leu Arg Asn Ile Ala Ala Met Lys Phe Ile Ile Lys Leu Phe
 1 5 10 15
 Pro Glu Ile Thr Ile Lys Ser Gln Ser Val Arg Leu Arg Phe Ile Lys
 20 25 30
 Ile Leu Thr Gly Asn Ile Arg Asn Val Leu Lys His Tyr Asp Glu Thr
 35 40 45
 Leu Ala Val Val Arg His Trp Asp His Val Glu Val Arg Ala Lys Asp
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ser | Lys | Arg | Leu | Asp | Ile | Arg | Asp | Ala | Leu | Thr | Arg | Ile | Pro | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | His | His | Ile | Leu | Glu | Val | Glu | Asp | Val | Pro | Phe | Ser | Asp | Met | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Ile | Phe | Glu | Lys | Ala | Leu | Val | Gln | Tyr | Arg | Asp | Gln | Ile | Glu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Thr | Phe | Cys | Val | Arg | Val | Lys | Arg | Arg | Gly | Lys | His | Glu | Phe | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ile | Glu | Val | Glu | Arg | Tyr | Val | Gly | Gly | Gly | Leu | Asn | Gln | His | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Thr | Ala | Arg | Val | Arg | Leu | Thr | Asn | Pro | Asp | Val | Thr | Val | Asn | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Ile | Glu | Asn | Asp | Arg | Leu | Leu | Leu | Val | Lys | Gly | Arg | Tyr | Glu | Gly |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ile | Gly | Gly | Phe | Pro | Ile | Gly | Thr | Gln | Glu | Asp | Val | Leu | Ser | Leu | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Gly | Gly | Phe | Asp | Ser | Gly | Val | Ser | Ser | Tyr | Met | Leu | Met | Arg | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Cys | Arg | Val | His | Tyr | Cys | Phe | Phe | Asn | Leu | Gly | Gly | Ala | Ala | His |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Ile | Gly | Val | Arg | Gln | Val | Ala | His | Tyr | Leu | Trp | Asn | Arg | Phe | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Ser | His | Arg | Val | Arg | Phe | Val | Ala | Ile | Asn | Phe | Glu | Pro | Val | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Glu | Ile | Leu | Glu | Lys | Val | Asp | Asp | Gly | Gln | Met | Gly | Val | Val | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Lys | Arg | Met | Met | Val | Arg | Ala | Ala | Ser | Lys | Val | Ala | Glu | Arg | Tyr | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Gln | Ala | Leu | Val | Thr | Gly | Glu | Ala | Leu | Gly | Gln | Val | Ser | Ser | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Leu | Thr | Asn | Leu | Arg | Leu | Ile | Asp | Asn | Val | Ser | Asp | Thr | Leu | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Arg | Pro | Leu | Ile | Ser | His | Asp | Lys | Glu | His | Ile | Ile | Asp | Leu | Ala |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Arg | Lys | Ile | Gly | Thr | Glu | Asp | Phe | Ala | Arg | Thr | Met | Pro | Glu | Tyr | Cys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gly | Val | Ile | Ser | Lys | Ser | Pro | Thr | Ile | Lys | Ala | Val | Lys | Ala | Lys | Ile |
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| Glu | Ala | Glu | Glu | Glu | Asn | Phe | Asp | Phe | Ser | Ile | Leu | Glu | Lys | Val | Val |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Glu | Ala | Ser | Asn | Ile | Asp | Ile | Arg | Glu | Ile | Ala | Gln | Gln | Thr | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gln | Glu | Val | Val | Glu | Val | Glu | Thr | Val | Ser | Gly | Phe | Gly | Ala | Asn | Asp |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Thr | Ile | Leu | Asp | Ile | Arg | Ser | Val | Asp | Glu | Gln | Asp | Asp | Lys | Pro | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Gln | Val | Glu | Gly | Val | Glu | Val | Val | Ser | Leu | Pro | Phe | Tyr | Lys | Leu | Ser |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Thr | Gln | Phe | Gly | Asp | Leu | Asp | Gln | Ser | Lys | Thr | Tyr | Leu | Leu | Trp | Cys |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Glu | Arg | Gly | Val | Met | Ser | Arg | Leu | Gln | Ala | Leu | Tyr | Leu | Arg | Glu | Gln |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gly | Phe | Ala | Asn | Val | Lys | Val | Tyr | Arg | Pro | | | | | | |
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<210> 7595

<211> 720

<212> PRT

<213> Enterobacter cloacae

<400> 7595

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| Ala | Thr | Pro | Asp | Tyr | His | Ala | Leu | Asn | Ala | Met | Leu | Asn | Leu | Tyr | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Glu | Gly | Arg | Ile | Gln | Phe | Asp | Lys | Asp | Arg | Glu | Ala | Val | Asp | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Phe | Ala | Ala | His | Val | Arg | Pro | Asn | Ser | Ile | Val | Phe | Gly | Ser | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Glu | Arg | Leu | Asp | Trp | Leu | Val | Lys | Glu | Gly | Tyr | Tyr | Glu | Glu | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Val | Leu | Thr | Arg | Tyr | Asp | Arg | Ala | Phe | Val | Val | Ala | Leu | Phe | Glu | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | His | Ala | Ser | Gly | Phe | Arg | Phe | Gln | Thr | Phe | Leu | Gly | Ala | Trp | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Tyr | Thr | Ser | Tyr | Thr | Leu | Lys | Thr | Phe | Asp | Gly | Lys | Arg | Tyr | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Ser | Phe | Glu | Asp | Arg | Val | Val | Met | Val | Ala | Leu | Thr | Leu | Ala | Gln |
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| Gly | Asp | Glu | Val | Leu | Ala | Glu | Ser | Leu | Thr | Glu | Glu | Ile | Leu | Ser | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Arg | Phe | Gln | Pro | Ala | Thr | Pro | Thr | Phe | Leu | Asn | Cys | Gly | Lys | Ala | Gln |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Arg | Gly | Glu | Leu | Val | Ser | Cys | Phe | Leu | Leu | Arg | Ile | Glu | Asp | Asn | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Ser | Ile | Gly | Arg | Ala | Val | Asn | Ser | Ala | Leu | Gln | Leu | Ser | Lys | Arg |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Gly | Gly | Gly | Val | Ala | Phe | Leu | Leu | Ser | Asn | Leu | Arg | Glu | Ala | Gly | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Ile | Lys | Arg | Ile | Glu | Asn | Gln | Ser | Ser | Gly | Val | Ile | Pro | Val | Met |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Lys | Met | Leu | Glu | Asp | Ala | Phe | Ser | Tyr | Ala | Asn | Gln | Leu | Gly | Ala | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Gly | Ala | Gly | Ala | Val | Tyr | Leu | His | Ala | His | His | Pro | Asp | Ile | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Phe | Leu | Asp | Thr | Lys | Arg | Glu | Asn | Ala | Asp | Glu | Lys | Ile | Arg | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Lys | Thr | Leu | Ser | Leu | Gly | Val | Val | Ile | Pro | Asp | Ile | Thr | Phe | Lys | Leu |
| | 290 | | | | 295 | | | | | | 300 | | | | |
| Ala | Lys | Glu | Asn | Ala | Asp | Met | Ala | Leu | Phe | Ser | Pro | Tyr | Asp | Val | Glu |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Arg | Ile | Tyr | Gly | Lys | Ala | Phe | Gly | Asp | Val | Ala | Ile | Ser | Glu | Leu | Tyr |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Asp | Glu | Leu | Val | Ala | Asp | Asp | Arg | Ile | Arg | Lys | Lys | Thr | Ile | Asn | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Arg | Asp | Phe | Phe | Gln | Thr | Leu | Ala | Glu | Ile | Gln | Phe | Glu | Ser | Gly | Tyr |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Pro | Tyr | Ile | Met | Tyr | Glu | Asp | Thr | Val | Asn | Arg | Ala | Asn | Pro | Ile | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Arg | Ile | Asn | Met | Ser | Asn | Leu | Cys | Ser | Glu | Ile | Leu | Gln | Val | Asn |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Ser | Ala | Ser | Ser | Tyr | Asp | Glu | Asn | Leu | Asp | Tyr | Ala | Asp | Val | Gly | Lys |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Asp | Ile | Ser | Cys | Asn | Leu | Gly | Ser | Leu | Asn | Ile | Ala | His | Thr | Met | Asp |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ser | Pro | Asp | Phe | Gly | Arg | Thr | Val | Glu | Thr | Ala | Ile | Arg | Gly | Leu | Thr |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Val | Ser | Asp | Met | Ser | His | Ile | Arg | Ser | Val | Pro | Ser | Ile | Glu | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Gly | Asn | Ala | Ala | Ser | His | Ala | Ile | Gly | Leu | Gly | Gln | Met | Asn | Leu | His |
| 465 | | | | 470 | | | | | | 475 | | | | | 480 |
| Gly | Tyr | Leu | Ala | Arg | Glu | Gly | Ile | Ala | Tyr | Gly | Ser | Pro | Glu | Gly | Leu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 485 | | | | 490 | | | | | 495 | | | | |
| Asp | Phe | Thr | Asn | Leu | Tyr | Phe | Tyr | Thr | Val | Thr | Trp | His | Ala | Val | His | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Thr | Ser | Met | Met | Leu | Ala | Arg | Glu | Arg | His | Gln | Arg | Phe | Ala | Gly | Phe | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Glu | Gln | Ser | Arg | Tyr | Ala | Ser | Gly | Glu | Tyr | Phe | Ser | Gln | Tyr | Leu | Glu | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Gly | Asp | Trp | Gln | Pro | Lys | Thr | Glu | Lys | Val | Arg | Ala | Leu | Phe | Ala | Arg | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Ala | Gly | Ile | Thr | Leu | Pro | Thr | Arg | Glu | Met | Trp | Gln | Gln | Leu | Arg | Glu | | |
| | | | | 565 | | | | | 570 | | | | | | 575 | | |
| Glu | Val | Met | Arg | Tyr | Gly | Ile | Tyr | Asn | Gln | Asn | Leu | Gln | Ala | Val | Pro | | |
| | | | 580 | | | | | 585 | | | | | | 590 | | | |
| Pro | Thr | Gly | Ser | Ile | Ser | Tyr | Ile | Asn | His | Ala | Thr | Ser | Ser | Ile | His | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Pro | Ile | Val | Ser | Lys | Ile | Glu | Ile | Arg | Lys | Glu | Gly | Lys | Thr | Gly | Arg | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Val | Tyr | Tyr | Pro | Ala | Pro | Phe | Met | Thr | Asn | Glu | Asn | Leu | Ala | Leu | Tyr | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | |
| Gln | Asp | Ala | Tyr | Glu | Ile | Gly | Pro | Glu | Lys | Ile | Ile | Asp | Thr | Tyr | Ala | | |
| | | | | 645 | | | | | 650 | | | | | | 655 | | |
| Glu | Ala | Thr | Lys | His | Val | Asp | Gln | Gly | Leu | Ser | Leu | Thr | Leu | Phe | Phe | | |
| | | | 660 | | | | | 665 | | | | | | 670 | | | |
| Pro | Asp | Thr | Ala | Thr | Thr | Arg | Asp | Ile | Asn | Lys | Ala | Gln | Ile | Tyr | Ala | | |
| | | 675 | | | | | 680 | | | | | 685 | | | | | |
| Trp | Lys | Lys | Gly | Ile | Lys | Thr | Leu | Tyr | Tyr | Ile | Arg | Leu | Arg | Gln | Leu | | |
| | 690 | | | | 695 | | | | | | 700 | | | | | | |
| Ala | Leu | Glu | Gly | Thr | Glu | Ile | Glu | Gly | Cys | Val | Ser | Cys | Ala | Leu | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7596

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| Gly | Glu | Trp | Met | Lys | Leu | Ser | Arg | Val | Ser | Ala | Val | Asn | Trp | Asn | Lys | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Ile | Gln | Asp | Asp | Lys | Asp | Leu | Glu | Val | Trp | Asn | Arg | Leu | Thr | Ser | Asn | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Phe | Trp | Leu | Pro | Glu | Lys | Val | Pro | Leu | Ser | Asn | Asp | Ile | Pro | Ala | Trp | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Gln | Thr | Leu | Ser | His | Ala | Glu | Gln | Gln | Leu | Thr | Ile | Arg | Val | Phe | Thr | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Gly | Leu | Thr | Leu | Leu | Asp | Thr | Ile | Gln | Asn | Thr | Val | Gly | Ala | Pro | Ala | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Leu | Met | Ser | Asp | Ala | Leu | Thr | Pro | His | Glu | Glu | Ala | Val | Met | Ser | Asn | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Ile | Ser | Phe | Met | Glu | Ala | Val | His | Ala | Arg | Ser | Tyr | Ser | Ser | Ile | Phe | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Ser | Thr | Leu | Cys | Gln | Thr | Arg | Asp | Val | Asp | Ala | Ala | Tyr | Ala | Trp | Ser | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Glu | Glu | Ser | Ala | Ser | Leu | Gln | Arg | Lys | Ala | Asp | Leu | Val | Leu | Glu | Tyr | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Tyr | Arg | Ala | Asp | Glu | Pro | Leu | Lys | Lys | Lys | Ile | Ala | Ser | Val | Phe | Leu | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Glu | Ser | Phe | Leu | Phe | Tyr | Ser | Gly | Phe | Trp | Leu | Pro | Met | Tyr | Trp | Ser | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Ser | Arg | Gly | Lys | Leu | Thr | Asn | Thr | Ala | Asp | Leu | Ile | Arg | Leu | Ile | Ile | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Arg | Asp | Glu | Ala | Val | His | Gly | Tyr | Tyr | Ile | Gly | Tyr | Lys | Tyr | Gln | Lys | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 195 | | | | | 200 | | | 205 | | | | | |
| Gly | Leu | Glu | Lys | Val | Ile | Pro | Glu | Lys | Arg | Glu | Glu | Leu | Lys | Gly | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | Asp | Leu | Leu | Met | Asp | Leu | Tyr | Asp | Asn | Glu | Leu | Ser | Tyr | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Glu | Leu | Tyr | Ala | Gly | Thr | Gly | Trp | Glu | Glu | Asp | Val | Lys | Ala | Phe |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Leu | Cys | Tyr | Asn | Ala | Asn | Lys | Ala | Leu | Met | Asn | Leu | Gly | Tyr | Glu | Ala |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Leu | Phe | Pro | Pro | Glu | Met | Ala | Glu | Val | Asn | Pro | Ala | Ile | Leu | Ala | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Ser | Pro | Asn | Ala | Asp | Glu | Asn | His | Asp | Phe | Phe | Ser | Gly | Ser | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Ser | Tyr | Val | Met | Gly | Lys | Ala | Val | Glu | Thr | Gln | Asp | Glu | Asp | Trp |
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<212> PRT

<213> Enterobacter cloacae

<400> 7597

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| Tyr | Lys | Val | Phe | Gly | Glu | His | Pro | Gln | Arg | Ala | Phe | Lys | Tyr | Ile | Glu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Lys | Gly | Leu | Ser | Lys | Glu | Gln | Ile | Leu | Glu | Lys | Thr | Gly | Leu | Ser | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Val | Lys | Asp | Ala | Ser | Leu | Ala | Ile | Glu | Glu | Gly | Glu | Ile | Phe | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Met | Gly | Leu | Ser | Gly | Ser | Gly | Lys | Ser | Thr | Met | Val | Arg | Leu | Leu |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Asn | Arg | Leu | Ile | Glu | Pro | Thr | Arg | Gly | Gln | Val | Leu | Ile | Asp | Gly | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Asp | Ile | Ala | Arg | Ile | Ser | Asp | Ala | Glu | Leu | Arg | Glu | Val | Arg | Arg | Lys |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Lys | Ile | Ala | Met | Val | Phe | Gln | Ser | Phe | Ala | Leu | Met | Pro | His | Met | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Leu | Asp | Asn | Thr | Ala | Phe | Gly | Met | Glu | Leu | Ala | Gly | Ile | Pro | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Glu | Arg | Gln | Glu | Lys | Ala | Leu | Asp | Ala | Leu | Arg | Gln | Val | Gly | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Asn | Tyr | Ala | His | Ala | Tyr | Pro | Asp | Glu | Leu | Ser | Gly | Gly | Met | Arg |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Gln | Arg | Val | Gly | Leu | Ala | Arg | Ala | Leu | Ala | Ile | Asn | Pro | Asp | Ile | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Met | Asp | Glu | Ala | Phe | Ser | Ala | Leu | Asp | Pro | Leu | Ile | Arg | Thr | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Met | Gln | Asp | Glu | Leu | Val | Lys | Leu | Gln | Ala | Lys | His | Gln | Arg | Thr | Ile |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Val | Phe | Ile | Ser | His | Asp | Leu | Asp | Glu | Ala | Met | Arg | Ile | Gly | Asp | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Ala | Ile | Met | Gln | Asn | Gly | Glu | Val | Val | Gln | Val | Gly | Thr | Pro | Asp |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Glu | Ile | Leu | Asn | Pro | Ala | Asn | Asp | Tyr | Val | Arg | Thr | Phe | Phe | Arg | |
| | | 260 | | | | | 265 | | | | | 270 | | | |
| Gly | Val | Asp | Ile | Ser | His | Val | Phe | Ser | Ala | Lys | Asp | Ile | Ala | Arg | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Pro | Asn | Gly | Ile | Ile | Arg | Lys | Thr | Pro | Gly | Phe | Gly | Pro | Arg | Ser |

| | | |
|---|-----|-----|
| 290 | 295 | 300 |
| Ala Leu Lys Leu Leu Gln Asp Glu Asp Arg Glu Tyr Gly Tyr Leu Val | | |
| 305 | 310 | 315 |
| Glu Arg Gly Asn Lys Phe Val Gly Val Val Ser Ile Asp Ser Leu Lys | | |
| | 325 | 330 |
| Thr Ala Leu Ser Glu Asn Gln Gly Ile Asp Ala Ala Leu Ile Asp Ala | | |
| | 340 | 345 |
| Pro Leu Ala Val Asp Ala Glu Thr Pro Leu Ser Glu Leu Leu Ser His | | |
| | 355 | 360 |
| Val Gly Gln Ala Pro Cys Ala Val Pro Val Val Gly Glu Glu Gln Gln | | |
| | 370 | 375 |
| Tyr Val Gly Ile Ile Ser Lys Arg Met Leu Leu Gln Ala Leu Asp Arg | | |
| 385 | 390 | 395 |
| Glu Gly Thr Asn Asn Gly | | |
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<211> 404

<212> PRT

<213> Enterobacter cloacae

<400> 7598

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| | 20 |
| Val Ala Ser Asn Tyr Tyr Ala Gln Pro Leu Leu Asp Thr Ile Ala Arg | |
| | 35 |
| Ala Phe Asp Leu Ser Ala Ser Ser Ala Gly Phe Ile Val Thr Ala Ala | |
| | 50 |
| Gln Leu Gly Tyr Ala Ala Gly Leu Leu Phe Leu Val Pro Leu Gly Asp | |
| 65 | 70 |
| Met Phe Glu Arg Arg Met Leu Ile Val Ser Met Thr Leu Leu Ala Ala | |
| | 85 |
| Gly Gly Met Leu Ile Thr Ala Ser Ser Gln Ser Leu Thr Met Met Ile | |
| | 100 |
| Ile Gly Thr Ala Leu Thr Gly Leu Phe Ser Val Val Ala Gln Ile Leu | |
| | 115 |
| Val Pro Leu Ala Ala Thr Leu Ala Ser Pro Glu Lys Arg Gly Lys Val | |
| | 130 |
| Val Gly Thr Ile Met Ser Gly Leu Leu Leu Gly Ile Leu Leu Ala Arg | |
| 145 | 150 |
| Thr Val Ala Gly Leu Leu Ala Ser Leu Gly Gly Trp Arg Thr Val Tyr | |
| | 165 |
| Trp Val Ala Ser Val Leu Met Leu Ile Met Ala Leu Ala Leu Trp Arg | |
| | 180 |
| Gly Leu Pro Lys Val Lys Gln Glu Asn His Leu Asn Tyr Pro Gln Leu | |
| | 195 |
| Leu Ala Ser Val Phe Ser Leu Phe Thr Arg Asp Lys Leu Leu Arg Thr | |
| | 210 |
| Arg Ala Ile Leu Gly Cys Leu Thr Phe Ala Asn Phe Ser Ile Leu Trp | |
| 225 | 230 |
| Thr Ser Met Ala Phe Leu Leu Ala Ala Pro Pro Phe Asn Tyr Ser Glu | |
| | 245 |
| Gly Val Ile Gly Leu Phe Gly Leu Ala Gly Ala Ala Gly Ala Leu Gly | |
| | 260 |
| Ala Arg Pro Ala Gly Gly Leu Ala Asp Lys Gly Lys Ser His Met Thr | |
| | 275 |
| Thr Ser Ala Gly Leu Val Leu Leu Leu Leu Ser Trp Ala Ala Ile Trp | |
| | 290 |
| Tyr Gly His Val Ser Val Leu Ala Leu Ile Val Gly Ile Leu Val Leu | |
| | 295 |
| | 300 |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 305 | | | | | 310 | | | | 315 | | | | 320 |
| Asp | Leu | Thr | Val | Gln | Gly | Val | His | Ile | Thr | Asn | Gln | Thr | Ile |
| | | | | 325 | | | | | 330 | | | | 335 |
| Arg | Met | Lys | Pro | Asp | Ala | Arg | Asn | Arg | Leu | Thr | Ala | Gly | Tyr |
| | | | 340 | | | | | 345 | | | | 350 | |
| Ser | Tyr | Phe | Ile | Gly | Gly | Ala | Ala | Gly | Ser | Leu | Ile | Ser | Ala |
| | | 355 | | | | | 360 | | | | 365 | | |
| Trp | Gln | His | Ala | Gly | Trp | Thr | Gly | Val | Cys | Ala | Ile | Gly | Ala |
| | 370 | | | | | 375 | | | | 380 | | | |
| Ala | Ala | Ile | Asn | Leu | Leu | Val | Trp | Trp | Arg | Gly | Tyr | His | Arg |
| 385 | | | | 390 | | | | | 395 | | | | 400 |
| Ala | Ile | His | | | | | | | | | | | |

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<211> 408

<212> PRT

<213> Enterobacter cloacae

<400> 7599

| | | | | | | | | | | | | | | | |
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| Gln | Gln | Val | Gly | Ser | Ala | Asp | Val | Lys | Ile | Lys | Arg | Ser | Trp | Arg | Thr |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Thr | Met | Ser | Ala | Asn | Ala | Glu | Asn | Thr | Pro | Pro | Gln | Gln | Pro | Val | Asn |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Lys | Lys | Gly | Lys | Arg | Lys | Ser | Ala | Leu | Ile | Leu | Leu | Thr | Leu | Leu | Phe |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ile | Ile | Ile | Ala | Val | Ala | Tyr | Gly | Ile | Tyr | Trp | Phe | Leu | Val | Leu | Arg |
| | 50 | | | | 55 | | | | 60 | | | | | | |
| His | Val | Glu | Glu | Thr | Asp | Ala | Tyr | Val | Ala | Gly | Asn | Gln | Val | Gln | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Ile | Met | Ala | Gln | Val | Ser | Gly | Ser | Val | Thr | Lys | Val | Trp | Ala | Asp | Asn |
| | | | 85 | | | | 90 | | | | | | 95 | | |
| Thr | Asp | Phe | Val | Lys | Lys | Ser | Asp | Val | Leu | Val | Thr | Leu | Asp | Pro | Thr |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Asp | Ala | Gln | Gln | Ala | Phe | Glu | Lys | Ala | Gln | Thr | Ala | Leu | Ala | Ser | Ser |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | Arg | Gln | Thr | Arg | Gln | Leu | Met | Ile | Asn | Ser | Lys | Gln | Leu | Gln | Ala |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Asn | Ile | Asp | Val | Gln | Lys | Thr | Ala | Leu | Ala | Gln | Ala | Gln | Ser | Asp | Leu |
| 145 | | | | 150 | | | | 155 | | | | | | 160 | |
| Asn | Arg | Arg | Val | Pro | Leu | Gly | Thr | Ala | Asn | Leu | Ile | Gly | Arg | Glu | Glu |
| | | | 165 | | | | 170 | | | | | | | 175 | |
| Leu | Gln | His | Ala | Arg | Asp | Ala | Val | Ala | Ser | Ala | Gln | Ala | Gln | Leu | Asp |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Val | Ala | Ile | Gln | Gln | Tyr | Asn | Ala | Asn | Gln | Ala | Met | Val | Leu | Gly | Thr |
| | 195 | | | | 200 | | | | | | 205 | | | | |
| Ser | Leu | Glu | Asn | Gln | Pro | Ala | Val | Lys | Gln | Ala | Ala | Thr | Glu | Val | Arg |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Asn | Ala | Trp | Leu | Ala | Leu | Gln | Arg | Thr | Lys | Ile | Val | Ser | Pro | Met | Thr |
| 225 | | | 230 | | | | | 235 | | | | | | 240 | |
| Gly | Tyr | Val | Ser | Arg | Arg | Ser | Val | Gln | Pro | Gly | Ala | Gln | Ile | Ser | Thr |
| | | | 245 | | | | 250 | | | | | | | 255 | |
| Thr | Thr | Pro | Leu | Met | Ala | Val | Val | Pro | Ala | Asn | Asn | Leu | Trp | Val | Asp |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ala | Asn | Phe | Lys | Glu | Thr | Gln | Leu | Ala | His | Met | Arg | Ile | Gly | Gln | Thr |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Ala | Thr | Val | Val | Ser | Asp | Ile | Tyr | Gly | Asp | Asp | Ile | Lys | Tyr | Thr | Gly |
| | 290 | | | | 295 | | | | | 300 | | | | | |
| Lys | Val | Val | Gly | Leu | Asp | Met | Gly | Thr | Gly | Ser | Ala | Phe | Ser | Leu | Leu |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Pro | Ala | Gln | Asn | Ala | Thr | Gly | Asn | Trp | Ile | Lys | Val | Val | Gln | Arg | Leu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Pro | Val | Arg | Ile | Glu | Leu | Asp | Pro | Lys | Gln | Leu | Ala | Asp | His | Pro | Leu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Arg | Ile | Gly | Leu | Ser | Thr | Leu | Val | Thr | Val | Asp | Thr | Ala | Asn | Arg | Asp | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Gly | Gln | Ile | Leu | Ala | Ser | Gln | Val | Arg | Ser | Thr | Pro | Ala | Tyr | Glu | Ser | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Asn | Ala | Arg | Glu | Ile | Ser | Leu | Asp | Pro | Val | Asn | Lys | Leu | Ile | Asp | Asp | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Ile | Val | Lys | Ala | Asn | Ala | Gly | | | | | | | | | | | |
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<210> 7600

<211> 162

<212> PRT

<213> Enterobacter cloacae

<400> 7600

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| Asn | Ala | Thr | Phe | Leu | Ser | Cys | Ser | Arg | Ser | Ser | Asp | Met | Phe | Ser | Pro | | |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Gln | Ser | Arg | Leu | Arg | His | Ala | Val | Ala | Asp | Thr | Phe | Ala | Met | Val | Val | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Tyr | Cys | Ser | Val | Val | Asn | Met | Leu | Ile | Glu | Ile | Phe | Leu | Ser | Gly | Met | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Ser | Phe | Glu | Gln | Ser | Leu | Ser | Ser | Arg | Leu | Val | Ala | Ile | Pro | Val | Asn | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Ile | Met | Ile | Ala | Trp | Pro | Tyr | Gly | Leu | Tyr | Arg | Asp | Ala | Val | Met | Arg | | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | | | |
| Leu | Ala | Arg | Arg | Ile | Ser | Pro | Ala | Gly | Trp | Val | Lys | Asn | Leu | Ala | Asp | | |
| | | 85 | | | | | | 90 | | | | | 95 | | | | |
| Val | Leu | Ala | Tyr | Val | Thr | Phe | Gln | Ser | Pro | Val | Tyr | Val | Phe | Ile | Leu | | |
| | | 100 | | | | | 105 | | | | | | 110 | | | | |
| Leu | Thr | Val | Gly | Ala | Asp | Trp | His | Gln | Ile | Ala | Ala | Ala | Val | Ser | Ser | | |
| | 115 | | | | | 120 | | | | | | 125 | | | | | |
| Asn | Ile | Val | Val | Ser | Met | Leu | Met | Gly | Ala | Val | Tyr | Gly | Tyr | Phe | Leu | | |
| | 130 | | | | 135 | | | | | | 140 | | | | | | |
| Asp | Tyr | Cys | Arg | Arg | Leu | Phe | Lys | Val | Ser | Pro | Tyr | Ser | Gln | Ala | Lys | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Ala | | | | | | | | | | | | | | | | | |

<210> 7601

<211> 182

<212> PRT

<213> Enterobacter cloacae

<400> 7601

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| Ser | Gly | Ala | Arg | Arg | Gly | Arg | His | Pro | Ala | Gly | Ala | Gly | Phe | Pro | Ser | | |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Ala | Ser | Gly | Cys | Gly | Cys | Arg | Arg | His | Gln | Leu | Val | Trp | Leu | Pro | Ser | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Gly | His | Asp | Gln | Pro | Pro | Cys | Arg | Ser | Gly | Arg | Gln | Cys | Met | Ser | Thr | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Leu | Val | Tyr | Phe | Ser | Ser | Ser | Ser | Glu | Asn | Thr | Leu | Arg | Phe | Met | Glu | | |
| | 50 | | | | 55 | | | | | | 60 | | | | | | |
| Arg | Leu | Gly | Leu | Pro | Ala | Ile | Arg | Ile | Pro | Leu | Asn | Glu | Arg | Glu | Arg | | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | | | |
| Ile | Gln | Val | Asp | Glu | Pro | Tyr | Ile | Leu | Val | Val | Pro | Ser | Tyr | Gly | Gly | | |
| | | 85 | | | | | | 90 | | | | | 95 | | | | |
| Gly | Gly | Thr | Ala | Gly | Ala | Val | Pro | Arg | Gln | Val | Ile | Arg | Phe | Leu | Asn | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |

Asp Pro His Asn Arg Gln Leu Ile Arg Gly Val Ile Ala Ala Gly Asn
 115 120 125
 Arg Asn Phe Gly Glu Ala Phe Ala Arg Ala Gly Asp Val Ile Ser Gln
 130 135 140
 Lys Cys Gly Val Pro Tyr Leu Tyr Arg Phe Glu Leu Met Gly Thr Gln
 145 150 155 160
 Gln Asp Val Glu Asn Val Arg Lys Gly Val Asn Glu Phe Trp Gln Arg
 165 170 175
 Gln Pro Gln Ser Ala
 180

<210> 7602

<211> 361

<212> PRT

<213> Enterobacter cloacae

<400> 7602

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 20 25 30
 Thr Pro Ala Pro Ala Asp Gly Gly Ala Ala Asp Trp Leu Asn Ser
 35 40 45
 Ala Pro Ala Pro Ala Pro Glu His Phe Asn Ile Met Asp Pro Phe His
 50 55 60
 Lys Thr Leu Ile Pro Leu Asp Ser Trp Val Thr Glu Gly Ile Asp Trp
 65 70 75 80
 Val Val Thr His Phe Arg Pro Val Phe Gln Gly Ile Arg Ile Pro Val
 85 90 95
 Asp Tyr Ile Leu Asn Gly Phe Gln Gln Leu Met Leu Gly Met Pro Ala
 100 105 110
 Pro Val Ala Ile Ile Leu Phe Ser Leu Ile Ala Trp Gln Phe Gly Ser
 115 120 125
 Ala Gly Met Gly Ile Ala Thr Leu Ile Ser Leu Ile Ala Ile Gly Ala
 130 135 140
 Ile Gly Ala Trp Ser Gln Ala Met Ile Thr Leu Ala Leu Val Leu Thr
 145 150 155 160
 Ala Leu Leu Phe Cys Val Val Ile Gly Leu Pro Met Gly Ile Trp Leu
 165 170 175
 Ala Arg Ser Pro Arg Ala Ala Lys Ile Ile Arg Pro Leu Leu Asp Ala
 180 185 190
 Met Gln Thr Thr Pro Ala Phe Val Tyr Leu Val Pro Ile Val Met Leu
 195 200 205
 Phe Gly Ile Gly Asn Val Pro Gly Val Val Val Thr Ile Ile Phe Ala
 210 215 220
 Leu Pro Pro Ile Ile Arg Leu Thr Ile Leu Gly Ile Asn Gln Val Pro
 225 230 235 240
 Ala Asp Leu Ile Glu Ala Ser Arg Ser Phe Gly Ala Ser Pro Arg Gln
 245 250 255
 Met Leu Phe Lys Val Gln Leu Pro Leu Ala Met Pro Thr Ile Met Ala
 260 265 270
 Gly Val Asn Gln Thr Leu Met Leu Ala Leu Ser Met Val Val Ile Ala
 275 280 285
 Ser Met Ile Ala Val Gly Gly Leu Gly Gln Met Val Leu Arg Gly Ile
 290 295 300
 Gly Arg Leu Asp Met Gly Leu Ala Thr Val Gly Gly Val Gly Ile Val
 305 310 315 320
 Ile Leu Ala Ile Ile Leu Asp Arg Leu Thr Gln Ala Val Gly Arg Asp
 325 330 335
 Ser Arg Ser Arg Gly Asn Arg Arg Trp Tyr Thr Thr Gly Pro Val Gly
 340 345 350

Leu Leu Thr Arg Pro Phe Thr Lys
355 360

<210> 7603

<211> 335

<212> PRT

<213> Enterobacter cloacae

<400> 7603

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| Gly | Thr | Thr | Met | Arg | His | Asn | Val | Leu | Phe | Ala | Thr | Ala | Phe | Ala | Thr |
| 1 | | | 5 | | | | | | 10 | | | | 15 | | |
| Leu | Val | Ser | Thr | Ser | Ala | Val | Ala | Ala | Asp | Leu | Pro | Gly | Lys | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Val | Gln | Pro | Val | Gln | Ser | Thr | Ile | Ser | Glu | Glu | Ser | Phe | Gln | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ile | Val | Ser | Arg | Ala | Leu | Glu | Lys | Leu | Gly | Tyr | Thr | Val | Asn | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ser | Glu | Val | Asp | Tyr | Asn | Val | Gly | Tyr | Thr | Ser | Ile | Ala | Ser | Gly |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Asp | Ala | Thr | Phe | Thr | Ala | Val | Asn | Trp | Gln | Pro | Leu | His | Asp | Asp | Met |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Tyr | Ala | Ala | Ala | Gly | Gly | Asp | Lys | Lys | Phe | Tyr | Arg | Glu | Gly | Thr | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Thr | Gly | Ala | Ala | Gln | Gly | Tyr | Leu | Ile | Asp | Lys | Lys | Thr | Ala | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Tyr | His | Ile | Thr | Asn | Ile | Glu | Gln | Leu | Lys | Asp | Pro | Lys | Ile | Ala |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Lys | Leu | Phe | Asp | Thr | Asn | Gly | Asp | Gly | Lys | Ala | Asp | Met | Met | Gly | Cys |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ser | Pro | Gly | Trp | Gly | Cys | Glu | Ala | Val | Ile | Asn | His | Gln | Asn | Lys | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Phe | Asp | Leu | Ala | Lys | Thr | Val | Asp | Val | Ser | His | Gly | Asn | Tyr | Ser | Ala |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Met | Met | Ala | Asp | Thr | Ile | Ala | Arg | Phe | Lys | Glu | Gly | Lys | Pro | Val | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Tyr | Thr | Trp | Thr | Pro | Tyr | Trp | Val | Ser | Asp | Val | Leu | Lys | Pro | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Asp | Val | Val | Trp | Leu | Gln | Val | Pro | Phe | Ser | Ser | Leu | Pro | Gly | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Gln | Lys | Asp | Ile | Asp | Thr | Lys | Leu | Pro | Asn | Gly | Met | Asn | Tyr | Gly | Phe |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Pro | Val | Asn | Thr | Met | His | Ile | Val | Ala | Asn | Lys | Ala | Trp | Ala | Glu | Lys |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Asn | Pro | Ala | Ala | Ala | Lys | Leu | Phe | Ser | Val | Met | Lys | Leu | Pro | Leu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Ile | Asn | Ala | Gln | Asn | Ala | Met | Met | His | Ala | Gly | Lys | Ser | Ser | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Asp | Ile | Lys | Gly | His | Val | Asp | Gly | Trp | Ile | Lys | Ala | His | Gln | Gln |
| 305 | | | | 310 | | | | | 315 | | | | | | 320 |
| Gln | Phe | Asp | Gly | Trp | Val | Lys | Glu | Ala | Leu | Glu | Ala | Gln | Lys | | |
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<210> 7604

<211> 527

<212> PRT

<213> Enterobacter cloacae

<400> 7604

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| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Pro | Gln | Lys | Pro | Leu | Glu | Gly | Ala | Gln | Leu | Val | Ile | Met | Thr | Ile | Ala |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | 20 | | | | 25 | | | | | 30 | | | |
| Leu | Ser | Leu | Ala | Thr | Phe | Met | Gln | Val | Leu | Asp | Ser | Thr | Ile | Ala | Asn | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | Ala | Ile | Pro | Thr | Ile | Ala | Gly | Asn | Leu | Gly | Ser | Ser | Leu | Ser | Gln | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gly | Thr | Trp | Val | Ile | Thr | Ser | Phe | Gly | Val | Ala | Asn | Ala | Ile | Ser | Ile | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Pro | Ile | Thr | Gly | Trp | Leu | Ala | Lys | Arg | Val | Gly | Glu | Val | Lys | Leu | Phe | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Trp | Ser | Thr | Ile | Leu | Phe | Val | Leu | Ala | Ser | Trp | Ala | Cys | Gly | Met | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Ser | Ser | Leu | Thr | Met | Leu | Ile | Phe | Phe | Arg | Val | Ile | Gln | Gly | Ile | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | Ala | Gly | Pro | Leu | Ile | Pro | Leu | Ser | Gln | Ser | Leu | Leu | Leu | Asn | Asn | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Tyr | Pro | Pro | Ala | Lys | Arg | Ser | Ile | Ala | Leu | Ala | Leu | Trp | Ser | Met | Thr | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Val | Ile | Val | Ala | Pro | Ile | Cys | Gly | Pro | Ile | Leu | Gly | Gly | Tyr | Ile | Ser | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Asp | Asn | Tyr | His | Trp | Gly | Trp | Ile | Phe | Phe | Ile | Asn | Val | Pro | Ile | Gly | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Ala | Leu | Val | Val | Leu | Met | Thr | Leu | Gln | Ser | Leu | Arg | Gly | Arg | Glu | Thr | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Arg | Thr | Glu | Gln | Arg | Arg | Ile | Asp | Gly | Ile | Gly | Leu | Ala | Leu | Leu | Val | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Val | Gly | Ile | Gly | Ser | Leu | Gln | Ile | Met | Leu | Asp | Arg | Gly | Lys | Glu | Leu | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Asp | Trp | Phe | Ala | Ser | Thr | Glu | Ile | Ile | Val | Leu | Thr | Val | Val | Ala | Val | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Val | Ala | Ile | Ser | Phe | Leu | Ile | Val | Trp | Glu | Leu | Thr | Asp | Asp | Asn | Pro | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Ile | Val | Asp | Leu | Ser | Leu | Phe | Lys | Ser | Arg | Asn | Phe | Thr | Ile | Gly | Cys | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Leu | Cys | Ile | Ser | Leu | Ala | Tyr | Met | Leu | Tyr | Phe | Gly | Ala | Ile | Val | Leu | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Leu | Pro | Gln | Leu | Leu | Gln | Glu | Val | Tyr | Gly | Tyr | Thr | Ala | Thr | Trp | Ala | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Gly | Leu | Ala | Ser | Ala | Pro | Val | Gly | Leu | Ile | Pro | Val | Leu | Leu | Ser | Pro | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Ile | Ile | Gly | Arg | Phe | Ala | His | Lys | Leu | Asp | Met | Arg | Arg | Leu | Val | Thr | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Phe | Ser | Phe | Ile | Met | Tyr | Ala | Val | Cys | Phe | Tyr | Trp | Arg | Ala | Tyr | Thr | |
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<210> 7605

<211> 118

<212> PRT

<213> Enterobacter cloacae

<400> 7605

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| Thr | Gly | Thr | Gln | Ile | Met | Glu | Asp | Arg | Met | Phe | Asn | Arg | Pro | Asn | Arg |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Asn | Asp | Ile | Asn | Asp | Asp | Thr | Gln | Asp | Ile | Arg | Asn | Asp | Val | Ser | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Asp | Thr | Leu | Glu | Ala | Val | Leu | Lys | Ser | Trp | Gly | Ser | Asp | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Asp | Glu | Ala | Asp | Ala | Ala | Lys | Arg | Lys | Ala | Gln | Ser | Leu | Leu | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Thr | Arg | Ala | Arg | Met | Asn | Gly | Arg | Ser | Arg | Thr | Thr | Gln | Ala | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Cys | Asp | Met | Ala | Ser | Cys | Ala | Thr | Thr | Phe | Val | Arg | Glu | Lys | Pro | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Cys | Thr | Leu | Gly | Thr | Val | Ala | Ala | Val | Gly | Ile | Phe | Val | Gly | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ser | Leu | Arg | Lys | | | | | | | | | | | |
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<210> 7606

<211> 85

<212> PRT

<213> Enterobacter cloacae

<400> 7606

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| Met | Glu | Met | Arg | Ile | Met | Ser | Ile | Ile | Ile | Tyr | Thr | Arg | Asn | Asp | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Gln | Cys | His | Ala | Thr | Lys | Arg | Ala | Met | Glu | Ser | Arg | Gly | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Glu | Met | Val | Asn | Ile | Asp | Gln | Val | Pro | Asp | Ala | Ala | Asp | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ala | Gln | Gly | Phe | Arg | Gln | Leu | Pro | Val | Val | Val | Ala | Gly | Asp | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Trp | Ser | Gly | Phe | Arg | Pro | Asp | Met | Ile | Asn | Arg | Leu | Ala | Ala | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Val | Ser | Ala | | | | | | | | | | | | |
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<210> 7607

<211> 209

<212> PRT

<213> Enterobacter cloacae

<400> 7607

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| His | Thr | Phe | Gly | Gly | Tyr | Asn | Arg | Thr | Asn | Asn | Ser | Phe | Thr | Leu | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Thr | Val | Val | Thr | Ile | Ser | Ala | Val | Ile | Asn | Glu | Val | Met | Pro | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Asp | Ser | Ser | Phe | Thr | Pro | Ile | Glu | Gln | Met | Leu | Lys | Phe | Arg | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | His | Glu | Asp | Phe | Pro | Tyr | Gln | Glu | Ile | Leu | Leu | Thr | Arg | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Met | His | Met | Gln | Gly | Lys | Leu | Leu | Glu | Asn | Arg | Asn | Lys | Met | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Lys Ala Gln Gly Ile Asn Glu Thr Leu Phe Met Ala Leu Ile Thr Leu
 85 90 95
 Glu Ser Gln Glu Asn His Ser Ile Gln Pro Ser Glu Leu Ser Cys Ala
 100 105 110
 Leu Gly Ser Ser Arg Thr Asn Ala Thr Arg Ile Ala Asp Glu Leu Glu
 115 120 125
 Lys Arg Gly Trp Ile Glu Arg Arg Glu Ser Asp Asn Asp Arg Arg Cys
 130 135 140
 Leu His Leu Gln Leu Thr Glu Lys Gly His Glu Phe Leu Arg Glu Val
 145 150 155 160
 Leu Pro Pro Gln His Asn Cys Leu His Gln Leu Trp Ser Ala Leu Ser
 165 170 175
 Thr Ala Glu Arg Asp Gln Leu Glu His Ile Thr Arg Lys Leu Thr
 180 185 190
 Arg Leu Asp Gln Met Asp Glu Asp Gly Val Ile Leu Glu Ala Leu Arg
 195 200 205

<210> 7608

<211> 565

<212> PRT

<213> Enterobacter cloacae

<400> 7608

Asn Arg Phe Thr Ile Val Lys Arg Gln Gln Glu Arg Thr Met Leu Asn
 1 5 10 15
 Thr Pro Ala Asp Lys Tyr Gln Pro Tyr Pro Thr Leu Ser Leu Pro Asp
 20 25 30
 Arg Arg Trp Pro Glu Gln Ile Ile Thr Cys Ala Pro Arg Trp Leu Ser
 35 40 45
 Thr Asp Leu Arg Asp Gly Asn Gln Ala Leu Ala Glu Pro Met Asp Ser
 50 55 60
 Ala Arg Lys Leu Gln Phe Trp Asp Leu Leu Leu Thr Cys Gly Phe Lys
 65 70 75 80
 Glu Ile Glu Val Ala Phe Pro Ser Ala Ser Gln Thr Asp Phe Asn Phe
 85 90 95
 Val Arg Gln Leu Ile Glu Glu Asn Arg Ile Pro Asp Asp Val Thr Ile
 100 105 110
 Gln Val Leu Thr Gln Ala Arg Asp Asp Leu Ile His Arg Thr Phe Asp
 115 120 125
 Ser Leu Arg Gly Ala Lys Gln Ala Thr Val His Leu Tyr Asn Ala Thr
 130 135 140
 Ala Pro Leu Phe Arg Arg Leu Val Phe Gly Met Glu Lys Ala Gln Ile
 145 150 155 160
 Val Glu Leu Ala Thr Arg Ala Thr Arg Leu Ile Arg Gln Leu Cys Glu
 165 170 175
 Glu Asn Pro Asp Thr Arg Trp Gln Tyr Glu Tyr Ser Pro Glu Thr Phe
 180 185 190
 Cys Phe Thr Glu Pro Glu Phe Ala Leu Glu Ile Cys Glu Ala Val Ala
 195 200 205
 Glu Ile Trp Gln Pro Cys Ala Ala Arg Pro Met Ile Val Asn Leu Pro
 210 215 220
 Ala Thr Val Glu Val Ser Thr Pro Asn Val Tyr Ala Asp Gln Ile Glu
 225 230 235 240
 Tyr Phe Cys Arg His Phe Ser Arg Arg Ser Asp Val Cys Ile Ser Val
 245 250 255
 His Pro His Asn Asp Arg Gly Thr Gly Val Ala Ser Ala Glu Leu Ala
 260 265 270
 Val Met Ala Gly Ala Asp Arg Val Glu Gly Cys Leu Phe Gly Asn Gly
 275 280 285

Glu Arg Thr Gly Asn Val Cys Leu Val Thr Leu Ala Met Asn Leu Tyr
 290 295 300
 Ser Gln Gly Ile Ser Pro Asn Leu Asp Phe Ser Asp Met Asn Arg Val
 305 310 315 320
 Val Glu Thr Val Glu Thr Cys Asn Gln Leu Pro Val His Pro Arg His
 325 330 335
 Pro Trp Ala Gly Arg Leu Ala Tyr Thr Ala Phe Ser Gly Ser His Gln
 340 345 350
 Asp Ala Ile Lys Lys Gly Phe Asp Ala Arg Lys Pro Gly Glu Arg Trp
 355 360 365
 Glu Met Pro Tyr Leu Pro Val Asp Pro Gln Asp Ile Gly Cys Thr Tyr
 370 375 380
 Glu Ala Val Ile Arg Val Asn Ser Gln Ser Gly Lys Ser Gly Ser Ala
 385 390 395 400
 Trp Leu Ile Glu Gln Asn His Gly Leu Lys Leu Pro Arg Ala Leu Gln
 405 410 415
 Gln Asp Phe Ser Gln His Val Gln Gln Glu Thr Asp Asn His Gly Lys
 420 425 430
 Glu Met Thr Gln Asn Ala Leu Trp Gln Leu Phe Arg Ala Arg Tyr Gly
 435 440 445
 Leu Val Ala Ser Pro Pro Leu Ala Leu Gln Ser Tyr Arg Ser Asp Ser
 450 455 460
 Gln Gln Asp Gly Gln Leu Arg Leu Thr Ala Ser Val Ala Thr His Gly
 465 470 475 480
 Gly Thr Arg Gln Leu Glu Gly Gln Gly Asn Gly Leu Leu Ser Ala Ala
 485 490 495
 Ala His Gly Leu Ser Arg Trp Ile Asn Ala Ser Phe Val Ile Lys Asp
 500 505 510
 Tyr His Glu His Thr Leu Gly Glu Arg Ser Asp Ser Arg Ser Val Ala
 515 520 525
 Tyr Ile Arg Cys Leu Phe Gln Asp Gly Thr Ser Arg Trp Gly Val Gly
 530 535 540
 Ile Asp Ser Asp Val Ala Arg Ala Ser Ile Gln Ala Leu Phe Asn Ala
 545 550 555 560
 Val Ser Arg Ser
 565

<210> 7609

<211> 145

<212> PRT

<213> Enterobacter cloacae

<400> 7609

Ser Phe Ser Glu Ser Thr Met Tyr Ala Gln Tyr Asp Gly Leu Ile Phe
 1 5 10 15
 Asp Met Asp Gly Thr Leu Leu Asp Thr Glu Pro Thr His Arg Gln Ala
 20 25 30
 Trp Thr Glu Val Leu Gly Arg Tyr Gly Met Arg Phe Asp Leu Gln Ala
 35 40 45
 Met Ile Ala Leu Asn Gly Ser Pro Thr Trp Arg Ile Ala Gln Ala Val
 50 55 60
 Ile Glu Leu Asn Gln Ala Asp Leu Asp Pro His Gln Leu Ala Arg Glu
 65 70 75 80
 Lys Thr Asp Ala Val Lys Ala Met Leu Leu Asp Thr Val Gln Pro Leu
 85 90 95
 Pro Leu Ile Asp Val Val Lys Glu Trp His Gly Arg Arg Pro Met Ser
 100 105 110
 Val Gly Thr Gly Ser Glu Ser Ala Ile Ala Glu Ala Leu Leu Asn His
 115 120 125
 Leu Gly Pro Ala Pro Leu Phe Phe Cys Arg Arg Cys Arg Arg Ser Cys
 130 135 140

145

<210> 7610

<211> 154

<212> PRT

<213> Enterobacter cloacae

<400> 7610

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Arg | Asn | Gly | Gly | Gly | Gly | Arg | Ser | Leu | Thr | Val | Ser | Asp | Ala | Leu |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ser | Leu | Ala | Ser | Leu | Phe | Ala | Ser | Ser | Phe | Leu | Ser | Ser | Thr | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Gly | Asn | Ser | Glu | Val | Val | Leu | Val | Ala | Met | Leu | Leu | Ser | Gly | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Gln | Pro | Trp | Leu | Leu | Val | Leu | Ile | Ala | Thr | Met | Gly | Asn | Ser | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Gly | Leu | Thr | Asn | Val | Ile | Leu | Gly | Arg | Phe | Phe | Pro | Leu | Arg | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Lys | Ser | Arg | Trp | Gln | Glu | Lys | Ala | Val | Gly | Trp | Leu | Lys | Arg | Tyr | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ala | Thr | Leu | Leu | Leu | Ser | Trp | Met | Pro | Val | Ile | Gly | Asp | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | Leu | Leu | Ala | Gly | Trp | Met | Arg | Ile | Ser | Trp | Gly | Pro | Val | Leu | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Leu | Cys | Leu | Gly | Lys | Ala | Leu | Arg | Tyr | Val | Leu | Leu | Ala | Trp | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Leu | Gln | Gly | Ile | Thr | Trp | Trp | His | | | | | | | |
| 145 | | | | | 150 | | | | | | | | | | |

<210> 7611

<211> 295

<212> PRT

<213> Enterobacter cloacae

<400> 7611

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Cys | Lys | Gln | Gln | Arg | Arg | Ala | Gly | Pro | Ala | Lys | Arg | Lys | Thr |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ser | Gly | Thr | Ala | His | Leu | Val | Ser | Cys | Leu | Trp | Met | Pro | Gly | Gly | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Thr | Gly | Pro | Thr | Ile | Leu | Met | Thr | Thr | Thr | Thr | Thr | Phe | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Thr | His | Arg | Pro | Leu | Val | Pro | Phe | Ser | His | Asp | Tyr | Ala | His | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Ser | Glu | Pro | Trp | His | Gln | His | Asp | Cys | Ala | Gln | Leu | Leu | His | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Leu | Thr | Gly | Val | Val | Arg | Val | Asp | Thr | Ala | Ser | Gly | Cys | Trp | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Pro | Gly | Arg | Gly | Val | Trp | Leu | Pro | Ala | Gly | Thr | Gln | His | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Ile | Thr | Gly | Asn | Val | Ala | Ala | Arg | Thr | Leu | Phe | Ile | Asp | Pro | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Arg | Ala | Asp | Leu | Pro | Ala | Thr | Cys | Gln | Ile | Val | Gln | Ile | Ser | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Arg | Glu | Leu | Ile | Leu | Thr | Ser | Leu | Thr | Leu | Pro | Glu | Ser | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Pro | Gly | Ser | Arg | Asp | Glu | Arg | Val | Tyr | Glu | Leu | Ile | Leu | Asp | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Arg | Leu | Met | Pro | Val | Leu | Pro | Phe | His | Leu | Pro | Glu | Pro | Glu | Ser |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Ala | Leu | Arg | His | Leu | Cys | Gln | Gln | Ile | Arg | Met | Ala | Pro | Gly | Glu |


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<210> 7612
<211> 118
<212> PRT
<213> Enterobacter cloacae
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<210> 7613
<211> 105
<212> PRT
<213> Enterobacter cloacae
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<210> 7614
<211> 173
<212> PRT
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<213> Enterobacter cloacae

<400> 7614

Arg Met Pro Leu Leu Asp Ser Phe Thr Val Asp His Thr Arg Met Glu
 1 5 10 15
 Ala Pro Ala Val Arg Val Ala Lys Thr Met Asn Thr Pro His Gly Asp
 20 25 30
 Thr Ile Thr Val Phe Asp Leu Arg Phe Cys Val Pro Asn Lys Glu Val
 35 40 45
 Met Pro Glu Lys Gly Ile His Thr Leu Glu His Leu Phe Ala Gly Phe
 50 55 60
 Met Arg Asp His Leu Asn Gly Asn Gly Val Glu Ile Ile Asp Ile Ser
 65 70 75 80
 Pro Met Gly Cys Arg Thr Gly Phe Tyr Met Ser Leu Ile Gly Gln Pro
 85 90 95
 Glu Glu Lys Arg Val Ala Asp Ala Trp Lys Ala Ala Met Glu Asp Val
 100 105 110
 Leu Lys Val Lys Glu Gln Asn Gln Ile Pro Glu Leu Asn Val Tyr Gln
 115 120 125
 Cys Gly Thr Tyr Gln Met His Ser Leu Glu Glu Ala Gln Glu Ile Ala
 130 135 140
 Arg His Ile Ile Glu Arg Asp Val Arg Val Asn Ser Asn Asp Glu Leu
 145 150 155 160
 Ala Leu Pro Lys Glu Lys Leu Gln Glu Leu His Ile
 165 170

<210> 7615

<211> 524

<212> PRT

<213> Enterobacter cloacae

<400> 7615

Gln Phe Phe Asp Arg Arg Glu Val Lys Leu Ile Pro Asp Val Ser Gln
 1 5 10 15
 Ala Leu Ala Trp Leu Glu Asn His Pro Gln Ala Leu Lys Gly Ile Gln
 20 25 30
 Arg Gly Leu Glu Arg Glu Thr Leu Arg Val Asn Ala Asp Gly Ser Leu
 35 40 45
 Ala Thr Thr Gly His Pro Lys Ala Leu Gly Ser Ala Leu Thr His Lys
 50 55 60
 Trp Ile Thr Thr Asp Phe Ala Glu Ala Leu Leu Glu Phe Ile Thr Pro
 65 70 75 80
 Val Asp Gly Asp Ile Asp His Met Leu Thr Ile Met Arg Asp Val His
 85 90 95
 Arg Phe Thr Ala Arg Asn Leu Gly Asp Glu Arg Met Trp Pro Leu Ser
 100 105 110
 Met Pro Cys Tyr Ile Glu Gln Gly Gln Asp Ile Glu Leu Ala Gln Tyr
 115 120 125
 Gly Thr Ser Asn Ile Gly Arg Leu Lys Thr Leu Tyr Arg Glu Gly Leu
 130 135 140
 Lys Asn Arg Tyr Gly Ala Leu Met Gln Thr Ile Ser Gly Val His Tyr
 145 150 155 160
 Asn Phe Ser Leu Pro Met Ala Phe Trp Gln Ala Lys Cys Gly Glu Thr
 165 170 175
 Asp Lys Glu Ala Ile Ser Ala Gly Tyr Phe Arg Leu Ile Arg Asn Tyr
 180 185 190
 Tyr Arg Phe Gly Trp Val Ile Pro Tyr Leu Phe Gly Ala Ser Pro Ala
 195 200 205
 Ile Cys Ser Ser Phe Leu Gln Gly Lys Pro Thr Thr Leu Pro Phe Glu
 210 215 220
 Lys Thr Glu Cys Gly Met Tyr Tyr Leu Pro Tyr Ala Thr Ser Leu Arg


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<210> 7616
<211> 119
<212> PRT
<213> Enterobacter cloacae
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[illegible]

<210> 7617
 <211> 454
 <212> PRT
 <213> Enterobacter cloacae

<400> 7617

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Glu | Val | Val | Met | Thr | Ser | Phe | Val | Val | Ala | Lys | Phe | Gly | Gly | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Val | Ala | Asp | Tyr | Asp | Ala | Met | Asn | Arg | Ser | Ala | Asp | Val | Val | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ala | Asp | Pro | Asn | Thr | Arg | Leu | Val | Val | Leu | Ser | Ala | Ser | Ala | Gly | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Asn | Leu | Leu | Val | Ser | Leu | Ser | Glu | Gly | Leu | Glu | Ala | Thr | Glu | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Val | Lys | Leu | Asp | Ala | Leu | Arg | Lys | Ile | Gln | Phe | Asp | Ile | Leu | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Arg | Leu | Gln | Asn | Pro | Asn | Val | Ile | Arg | Glu | Glu | Val | Glu | Arg | Leu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Asn | Ile | Thr | Thr | Leu | Ala | Glu | Ala | Ala | Ser | Leu | Ala | Thr | Ser | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | Thr | Asp | Glu | Leu | Val | Ser | His | Gly | Glu | Leu | Met | Ser | Thr | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Phe | Val | Glu | Ile | Met | Arg | Glu | Arg | Asn | Ile | Gln | Ala | Gln | Trp | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Val | Arg | Lys | Val | Met | Arg | Thr | Ser | Asp | Arg | Phe | Gly | Arg | Ala | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Asp | Val | Glu | Val | Leu | Ala | Glu | Leu | Thr | Asn | Gln | Gln | Leu | Ala | Pro |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Arg | Leu | Asp | Glu | Gly | Ile | Val | Ile | Thr | Gln | Gly | Phe | Ile | Gly | Ser | Glu |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ala | Lys | Gly | Arg | Thr | Thr | Thr | Leu | Gly | Arg | Gly | Gly | Ser | Asp | Tyr | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Ala | Leu | Leu | Gly | Glu | Ala | Leu | His | Ala | Thr | Arg | Val | Asp | Ile | Trp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Asp | Val | Pro | Gly | Ile | Tyr | Thr | Thr | Asp | Pro | Arg | Val | Val | Ser | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Lys | Arg | Ile | Asp | Val | Ile | Ala | Phe | Glu | Glu | Ala | Ala | Glu | Met | Ala |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Thr | Phe | Gly | Ala | Lys | Val | Leu | His | Pro | Ala | Thr | Leu | Leu | Pro | Ala | Val |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Arg | Ser | Asp | Ile | Pro | Val | Phe | Val | Gly | Ser | Ser | Lys | Asp | Pro | Lys | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Gly | Thr | Leu | Val | Cys | Lys | Lys | Thr | Glu | Asn | Pro | Pro | Leu | Phe | Arg |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Ala | Leu | Ala | Leu | Arg | Arg | Lys | Gln | Thr | Leu | Val | Thr | Leu | His | Ser | His |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Met | Leu | His | Ser | Arg | Gly | Phe | Leu | Ala | Glu | Val | Phe | Gly | Ile | Leu |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ala | Arg | His | Asn | Ile | Ser | Val | Asp | Leu | Ile | Thr | Thr | Ser | Glu | Val | Ser |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Ala | Leu | Thr | Leu | Asp | Thr | Thr | Gly | Ser | Thr | Ser | Thr | Gly | Asp | Thr |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Leu | Thr | Gln | Ser | Leu | Leu | Ile | Glu | Leu | Ser | Glu | Leu | Cys | Arg | Val |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Glu | Val | Glu | Glu | Asp | Leu | Ala | Leu | Val | Ala | Ile | Ile | Gly | Asn | Lys | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ser | Arg | Ala | Cys | Gly | Val | Gly | Lys | Glu | Val | Phe | Gly | Val | Leu | Asp | Pro |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Phe | Asn | Ile | Arg | Met | Ile | Cys | Tyr | Gly | Ala | Ser | Ser | Tyr | Asn | Leu | Cys |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Phe | Leu | Val | Pro | Ala | Asp | Gln | Ala | Glu | Gln | Val | Val | Gln | Lys | Leu | His |

435
Gln Asn Leu Phe Glu
450

440

445

<210> 7618
<211> 340
<212> PRT
<213> Enterobacter cloacae

<400> 7618

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ile | Ser | Ile | Ser | Arg | Ala | Gln | Thr | Arg | Leu | Phe | Tyr | Asn | Lys | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Arg | Gln | Tyr | Cys | Lys | Glu | Phe | Thr | Met | Leu | Ser | Ala | Ile | Thr | Arg |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Phe | Pro | Leu | Trp | Ala | Leu | Leu | Leu | Ser | Val | Leu | Ala | Tyr | Tyr | Thr |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Pro | Ala | Thr | Phe | Thr | Gly | Ile | Gly | Pro | Trp | Val | Thr | Thr | Leu | Leu | Met |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Leu | Ile | Met | Phe | Gly | Met | Gly | Val | His | Leu | Lys | Ile | Asp | Asp | Phe | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Arg | Val | Leu | Ser | Arg | Pro | Ala | Pro | Val | Ala | Gly | Ile | Phe | Leu | His | |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Tyr | Leu | Val | Met | Pro | Leu | Ala | Ala | Trp | Leu | Leu | Ala | Met | Ala | Phe | Lys |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Met | Pro | Pro | Asp | Leu | Ser | Ala | Gly | Met | Val | Leu | Val | Gly | Ser | Val | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Gly | Thr | Ala | Ser | Asn | Val | Met | Ile | Tyr | Leu | Ala | Lys | Gly | Asp | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Leu | Ser | Val | Thr | Ile | Ser | Ser | Val | Ser | Thr | Leu | Val | Gly | Val | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Thr | Pro | Leu | Leu | Thr | Arg | Leu | Tyr | Val | Asp | Ala | His | Ile | Gln | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asp | Val | Met | Gly | Met | Leu | Leu | Ser | Ile | Leu | Gln | Ile | Val | Val | Ile | Pro |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ile | Ala | Leu | Gly | Leu | Val | Ile | His | His | Leu | Phe | Pro | Arg | Val | Val | Lys |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Ala | Val | Glu | Pro | Tyr | Leu | Pro | Ala | Phe | Ser | Met | Ile | Cys | Ile | Leu | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Ile | Ser | Ala | Val | Val | Ala | Gly | Ser | Ala | Ser | His | Ile | Ala | Ser | Val |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Gly | Phe | Val | Val | Ile | Val | Ala | Val | Val | Leu | His | Asn | Thr | Ile | Gly | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Gly | Gly | Tyr | Trp | Gly | Gly | Lys | Leu | Phe | Gly | Phe | Asp | Glu | Ser | Thr |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Cys | Arg | Thr | Leu | Ala | Ile | Glu | Val | Gly | Met | Gln | Asn | Ser | Gly | Leu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Ala | Leu | Gly | Lys | Ile | Tyr | Phe | Ser | Pro | Leu | Ala | Ala | Leu | Pro | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Leu | Phe | Ser | Val | Trp | His | Asn | Leu | Ser | Gly | Ser | Leu | Leu | Ala | Gly |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Tyr | Trp | Ser | Gly | Lys | Pro | Ile | Asp | Asp | Gln | Pro | Lys | Lys | Asp | Ala | Val |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Lys | Gln | Gly | | | | | | | | | | | | | |

340

<210> 7619
<211> 311
<212> PRT
<213> Enterobacter cloacae

<400> 7619

His Glu Thr Cys Ser Leu Ser Leu Leu Arg Ser Val Arg Lys Ala Val
 1 5 10 15
 Ala Lys Pro Pro Asn Lys Thr Lys Met Ile Ser Thr Ile Gln Lys Lys
 20 25 30
 Glu Phe Val Met Val Thr Thr Val Pro Ala Lys Arg Gly Arg Lys Pro
 35 40 45
 Ala Ala Thr Thr Ala Ala Gln Pro Gly Gly Gln Val Gln Ser Leu Thr
 50 55 60
 Arg Gly Leu Lys Leu Leu Glu Trp Ile Ala Glu Ser His Gly Ser Val
 65 70 75 80
 Ala Leu Thr Glu Leu Ala Gln Gln Ala Gly Leu Pro Asn Ser Thr Thr
 85 90 95
 His Arg Leu Leu Thr Thr Met Gln Gln Leu Gly Phe Val Arg Gln Val
 100 105 110
 Gly Glu Leu Gly His Trp Ala Val Gly Ala His Ala Phe Ile Val Gly
 115 120 125
 Ser Ser Phe Leu Gln Ser Arg Asn Leu Leu Ala Ile Val His Pro Ile
 130 135 140
 Leu Arg Lys Leu Met Glu Glu Ser Gly Glu Thr Val Asn Leu Ala Val
 145 150 155 160
 Leu Asp Gln Ser Asp His Gln Ala Ile Ile Asp Gln Val Gln Cys
 165 170 175
 Thr Gln Leu Met Arg Met Ser Ala Pro Ile Gly Gly Lys Leu Pro Met
 180 185 190
 His Ala Ser Gly Ala Gly Lys Ala Phe Leu Ser Gln Leu Ser Glu Glu
 195 200 205
 Gln Val Thr Gly Leu Leu His Arg Lys Gly Leu His Ala Tyr Thr His
 210 215 220
 Ala Thr Leu Val Ser Pro Val His Leu Lys Glu Asp Leu Ala Leu Thr
 225 230 235 240
 Arg Lys Arg Gly Tyr Ser Phe Asp Asp Glu Glu His Ala Leu Gly Leu
 245 250 255
 Arg Cys Leu Ala Ser Cys Ile Phe Asp Glu His Arg Glu Pro Phe Ala
 260 265 270
 Ala Ile Ser Ile Ser Gly Pro Ile Ser Arg Met Thr Asp Asp Arg Val
 275 280 285
 Thr Glu Leu Gly Ala Met Val Ile Lys Ala Ala Lys Glu Val Thr Leu
 290 295 300
 Ala Tyr Gly Gly Ile Arg
 305 310

<210> 7620

<211> 106

<212> PRT

<213> Enterobacter cloacae

<400> 7620

Ile Thr Gly Ser Asn Met Lys Glu Ile Val Gln Thr Glu Ser Phe Arg
 1 5 10 15
 Arg Trp Glu Gln Asn Leu Lys Asp Arg Arg Ala Lys Thr Ile Ile Ala
 20 25 30
 Ser Arg Leu Phe Arg Leu Ala Asn Gly Leu Ala Gly Asp Ile Arg Pro
 35 40 45
 Val Gly Glu Gly Ile Ser Glu Leu Arg Ile His Phe Gly Pro Gly Tyr
 50 55 60
 Arg Val Tyr Phe Lys Asp Gln Gly Asn Cys Ile Ile Val Leu Leu Cys
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 Gly Gly Asp Lys Ser Ser Gln Ala Arg Asp Ile Leu Met Ala Lys Met
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 Leu Ser Asn Val Ser Gln Trp Gln Glu
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<400> 7621

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| Asp | Asp | Glu | Glu | Ile | Ala | Val | Phe | Met | Ala | Asp | Ala | Leu | Glu | Thr | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Asp | Ser | Ala | Tyr | Ile | Ala | Lys | Ala | Leu | Gly | Val | Ile | Ala | Arg | Ala | Lys |
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| Gly | Met | Ser | Thr | Ile | Ser | Gln | Gln | Thr | Gly | Leu | Ser | Arg | Glu | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Arg | Ser | Phe | Ser | Asp | Lys | Gly | Asn | Pro | Thr | Leu | Lys | Thr | Thr | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Val | Met | Lys | Ala | Leu | Gly | Leu | Gly | Leu | Thr | Ile | Lys | Pro | Ser | Gly |
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Asp

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| Asn | Phe | Leu | Arg | Glu | Glu | Asn | Val | Phe | Val | Met | Thr | Thr | Ser | Arg | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ser | Gly | Gln | Glu | Ile | Arg | Pro | Leu | Lys | Val | Leu | Ile | Leu | Asn | Leu | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Lys | Lys | Ile | Glu | Thr | Glu | Asn | Gln | Phe | Leu | Arg | Leu | Leu | Ser | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Pro | Leu | Gln | Val | Asp | Ile | Gln | Leu | Leu | Arg | Ile | Asp | Ala | Arg | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Arg | Asn | Thr | Pro | Ala | Glu | His | Leu | Asn | Asn | Phe | Tyr | Cys | Asn | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Asp | Ile | Arg | Asp | Glu | Asn | Phe | Asp | Gly | Leu | Ile | Val | Thr | Gly | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Leu | Gly | Leu | Val | Glu | Phe | Asn | Asp | Val | Ala | Tyr | Trp | Pro | Gln | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Gln | Val | Leu | Glu | Trp | Ala | Lys | Asp | His | Val | Thr | Ser | Thr | Leu | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Cys | Trp | Ala | Val | Gln | Ala | Ala | Leu | Asn | Ile | Leu | Tyr | Gly | Ile | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Gln | Thr | Arg | Ser | Asp | Lys | Leu | Ser | Gly | Val | Tyr | Glu | His | His | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | His | Pro | His | Ala | Leu | Leu | Thr | Arg | Gly | Phe | Asp | Asp | Thr | Phe | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Pro | His | Ser | Arg | Tyr | Ala | Asp | Phe | Pro | Ala | Gln | Leu | Ile | Arg | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Thr | Asp | Leu | Glu | Ile | Leu | Ala | Glu | Thr | Glu | Asp | Gly | Asp | Ala | Tyr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Phe | Ala | Ser | Lys | Asp | Lys | Arg | Ile | Ala | Phe | Val | Thr | Gly | His | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Tyr | Asp | Pro | His | Thr | Leu | Ala | Ala | Glu | Tyr | Phe | Arg | Asp | Val | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |

Ala Gly Leu Asn Pro Asp Val Pro Tyr Asn Tyr Phe Pro Lys Asn Asp

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 260 | | | | | 265 | | | | 270 | | | |
| Pro | Gln | Asn | Thr | Pro | Arg | Ala | Thr | Trp | Arg | Ser | His | Gly | Asn | Leu | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Thr | Asn | Trp | Leu | Asn | Tyr | Tyr | Val | Tyr | Gln | Ile | Thr | Pro | Tyr | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
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<213> Enterobacter cloacae

<400> 7623

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | His | Leu | His | Met | Lys | Thr | Arg | Thr | Gln | Gln | Ile | Glu | Glu | Leu | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Glu | Trp | Thr | Gln | Pro | Arg | Trp | Glu | Gly | Ile | Arg | Arg | Pro | Tyr | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Glu | Glu | Val | Val | Lys | Leu | Arg | Gly | Ser | Val | Asn | Pro | Glu | Cys | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ala | Gln | Asn | Gly | Ala | Ala | Lys | Met | Trp | Asp | Leu | Leu | His | Gly | Gly |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Ala | Lys | Lys | Gly | Tyr | Ile | Asn | Ser | Leu | Gly | Ala | Leu | Thr | Gly | Gly | Gln |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Leu | Gln | Gln | Ala | Lys | Ala | Gly | Ile | Glu | Ala | Ile | Tyr | Leu | Ser | Gly |
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| Trp | Gln | Val | Ala | Ala | Asp | Ala | Asn | Leu | Ala | Ser | Ser | Met | Tyr | Pro | Asp |
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| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Asn | Thr | Phe | Arg | Arg | Ala | Asp | Gln | Ile | Gln | Trp | Ala | Ala | Gly | Ile |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Glu | Pro | His | Asp | Pro | Arg | Phe | Ile | Asp | Tyr | Phe | Leu | Pro | Ile | Val | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asp | Ala | Glu | Ala | Gly | Phe | Gly | Gly | Val | Leu | Asn | Ala | Phe | Glu | Leu | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Ser | Met | Ile | Glu | Ala | Gly | Ala | Ala | Val | His | Phe | Glu | Asp | Gln | |
| | 195 | | | | | | 200 | | | | 205 | | | | |
| Leu | Ala | Ser | Val | Lys | Lys | Cys | Gly | His | Met | Gly | Gly | Lys | Val | Leu | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Thr | Gln | Glu | Ala | Ile | Gln | Lys | Leu | Val | Ala | Ala | Arg | Leu | Ala | Ala |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Asp | Val | Leu | Gly | Val | Pro | Thr | Leu | Val | Ile | Ala | Arg | Thr | Asp | Ala | Asp |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ala | Ala | Asp | Leu | Ile | Thr | Ser | Asp | Cys | Asp | Pro | Tyr | Asp | Ser | Glu | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Thr | Gly | Glu | Arg | Thr | Ser | Glu | Gly | Phe | Tyr | Arg | Thr | His | Ala | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Glu | Gln | Ala | Ile | Ser | Arg | Gly | Leu | Ala | Tyr | Ala | Pro | Tyr | Ala | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Val | Trp | Cys | Glu | Thr | Ser | Thr | Pro | Asp | Leu | Ala | Leu | Ala | Lys | Arg |
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| Phe | Ala | Asp | Ala | Ile | His | Ala | Lys | Tyr | Pro | Gly | Lys | Leu | Leu | Ala | Tyr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asn | Cys | Ser | Pro | Ser | Phe | Asn | Trp | Gln | Lys | Asn | Leu | Asp | Asp | Thr | Thr |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Ala | Ser | Phe | Gln | Gln | Gln | Leu | Ser | Asp | Met | Gly | Tyr | Lys | Tyr | Gln |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Phe | Ile | Thr | Leu | Ala | Gly | Ile | His | Ser | Met | Trp | Phe | Asn | Met | Phe | Asp |

| | | |
|---|---|-----|
| 370 | 375 | 380 |
| Leu Ala His Ala Tyr | Ala Gln Gly Glu Gly Met Lys His Tyr Val Glu | |
| 385 | 390 | 395 |
| Lys Val Gln Gln Pro | Glu Phe Ala Ala Gly Lys Glu Gly Tyr Thr Phe | 400 |
| | 405 | 410 |
| Val Ser His Gln Gln Glu Val Gly Thr Gly Tyr Phe Asp Asn Val Thr | | 415 |
| | 420 | 425 |
| Thr Ile Ile Gln Gly Gly Ala Ser Ser Val Thr Ala Leu Thr Gly Ser | | 430 |
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| | 20 | 25 |
| Gly Phe Asp Ala | Gln Tyr Gly Arg Phe Leu Glu Val Thr Ser Gly Ala | |
| | 35 | 40 |
| Gln Gln Arg Phe | Glu His Ala Asp Trp His Ala Val Gln Gln Ala Met | |
| | 50 | 55 |
| Lys Gln Arg Ile | His Leu Tyr Asp His His Val Gly Leu Val Val Glu | |
| 65 | 70 | 75 |
| Gln Leu Arg Cys | Ile Thr Asp Gly Lys Ser Pro Asp Ala Asp Phe Leu | |
| | 85 | 90 |
| Leu Arg Val Lys | Glu His Tyr Thr His Leu Leu Pro Asp Tyr Pro Arg | |
| | 100 | 105 |
| Phe Glu Ile Ala | Glu Ser Phe Phe Asn Ser Val Tyr Cys Arg Leu Phe | |
| | 115 | 120 |
| Asp His Arg Ser | Leu Ser Pro Glu Arg Leu Phe Ile Phe Ser Ser Gln | |
| | 130 | 135 |
| Pro Glu Arg Arg | Phe Arg Thr Ile Pro Arg Pro Leu Ala Lys Asp Phe | |
| 145 | 150 | 155 |
| Phe Pro Asp Arg | Gly Trp Glu Lys Leu Leu His Arg Val Leu Thr Asp | |
| | 165 | 170 |
| Leu Pro Leu Arg | Leu Pro Trp Glu Asn Lys Pro Arg Asp Ile Gly Tyr | |
| | 180 | 185 |
| Ile His Ala Tyr | Leu Ser Glu Thr Phe Gly Glu Glu Val Leu Ser Arg | |
| | 195 | 200 |
| Ser His Leu Gln | Val Ala Asn Glu Leu Phe Tyr Arg Asn Lys Ala Ala | |
| | 210 | 215 |
| Trp Leu Val Gly | Lys Leu Val Thr Pro Thr Ala Ile Val Pro Phe Leu | |
| 225 | 230 | 235 |
| Leu Pro Ile His | Arg Thr Asp Asp Gly Glu Leu Phe Val Asp Thr Cys | |
| | 245 | 250 |
| Leu Thr Thr Ser | Ala Glu Ala Ser Ile Val Phe Gly Phe Ala Arg Ser | |
| | 260 | 265 |
| Tyr Phe Met Val | Tyr Ala Pro Leu Pro Ala Ala Leu Val Glu Trp Leu | |
| | 275 | 280 |
| Arg Glu Ile Leu | Pro Gly Lys Thr Thr Ala Glu Leu Tyr Met Ala Ile | |
| | 290 | 295 |
| Gly Cys Gln Lys | His Ala Lys Thr Glu Ser Tyr Arg Glu Tyr Leu Arg | |
| 305 | 310 | 315 |
| Tyr Val Thr Thr | Ala Asp Glu Gln Phe Ile Glu Ala Pro Gly Ile Arg | |
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| Gly Met Val Met | Leu Val Phe Thr Leu Pro Gly Phe Asp Arg Val Phe | |


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| Gln | Leu | Asn | Glu | Arg | Ile | Leu | Val | Leu | Asp | Gly | Gly | Met | Gly | Thr | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Gln | Gly | Tyr | Arg | Leu | Cys | Glu | Asp | Asp | Phe | Arg | Gly | Glu | Arg | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Asp | Trp | Pro | Cys | Asp | Leu | Lys | Gly | Asn | Asn | Asp | Leu | Leu | Val | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Lys | Pro | Ser | Val | Ile | Arg | Asp | Ile | His | Asn | Ala | Tyr | Phe | Glu | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Ala | Asp | Ile | Val | Glu | Thr | Asn | Thr | Phe | Asn | Ser | Thr | Thr | Ile | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Met | Ala | Asp | Tyr | Gln | Met | Glu | Ser | Leu | Ser | Ala | Glu | Ile | Asn | Phe | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Lys | Leu | Ala | Arg | Ala | Cys | Ala | Asp | Glu | Trp | Thr | Ala | Arg | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Asp | Lys | Pro | Arg | Tyr | Val | Ala | Gly | Val | Leu | Gly | Pro | Thr | Asn | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Ala | Ser | Ile | Ser | Pro | Asp | Val | Asn | Asp | Pro | Ala | Phe | Arg | Asn | Ile |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Thr | Phe | Asp | Gln | Leu | Val | Ala | Ala | Tyr | Arg | Glu | Ser | Thr | Lys | Ala | Leu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 165 | | | | 170 | | | | | 175 | | | | |
| Val | Glu | Gly | Gly | Ser | Asp | Leu | Ile | Leu | Ile | Glu | Thr | Val | Phe | Asp | Thr | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Leu | Asn | Ala | Lys | Ala | Ala | Ile | Tyr | Ala | Val | Lys | Glu | Glu | Phe | Glu | Ser | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Gly | Val | Asp | Leu | Pro | Ile | Met | Ile | Ser | Gly | Thr | Ile | Thr | Asp | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Ser | Gly | Arg | Thr | Leu | Ser | Gly | Gln | Thr | Thr | Glu | Ala | Phe | Tyr | Asn | Ser | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Leu | Arg | His | Ala | Glu | Ala | Leu | Ser | Phe | Gly | Leu | Asn | Cys | Ala | Leu | Gly | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Pro | Asp | Glu | Leu | Arg | Gln | Tyr | Val | Gln | Glu | Leu | Ser | Arg | Ile | Ala | Glu | | |
| | | | 260 | | | | | 265 | | | | | | 270 | | | |
| Cys | Tyr | Val | Thr | Ala | His | Pro | Asn | Ala | Gly | Leu | Pro | Asn | Ala | Phe | Gly | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Glu | Tyr | Asp | Leu | Asp | Ala | Asp | Thr | Met | Ala | Ala | Gln | Ile | Arg | Glu | Trp | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Ala | Glu | Ser | Gly | Phe | Leu | Asn | Ile | Val | Gly | Gly | Cys | Cys | Gly | Thr | Thr | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Pro | Glu | His | Ile | Ala | Ala | Met | Ser | Asn | Ala | Val | Ala | Gly | Leu | Pro | Pro | | |
| | | | 325 | | | | | | 330 | | | | | 335 | | | |
| Arg | Lys | Leu | Pro | Glu | Leu | Pro | Val | Ala | Cys | Arg | Leu | Ser | Gly | Leu | Glu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Pro | Leu | Thr | Ile | Gly | Asp | Asp | Ser | Leu | Phe | Val | Asn | Val | Gly | Glu | Arg | | |
| | | 355 | | | | 360 | | | | | | 365 | | | | | |
| Thr | Asn | Val | Thr | Gly | Ser | Ala | Lys | Phe | Lys | Arg | Leu | Ile | Lys | Glu | Glu | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Lys | Tyr | Ser | Glu | Ala | Leu | Asp | Val | Ala | Arg | Gln | Gln | Val | Glu | Ser | Gly | | |
| 385 | | | | | 390 | | | | 395 | | | | | | 400 | | |
| Ala | Gln | Ile | Ile | Asp | Ile | Asn | Met | Asp | Glu | Gly | Met | Leu | Asp | Ala | Glu | | |
| | | | 405 | | | | | 410 | | | | | | 415 | | | |
| Ala | Ala | Met | Val | Arg | Phe | Leu | Asn | Leu | Ile | Ala | Gly | Glu | Pro | Asp | Ile | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Ala | Arg | Val | Pro | Ile | Met | Ile | Asp | Ser | Ser | Lys | Trp | Asp | Val | Ile | Glu | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Lys | Gly | Leu | Lys | Cys | Ile | Gln | Gly | Lys | Gly | Ile | Val | Asn | Ser | Ile | Ser | | |
| | 450 | | | | 455 | | | | | | 460 | | | | | | |
| Met | Lys | Glu | Gly | Val | Asp | Thr | Phe | Ile | His | His | Ala | Lys | Leu | Val | Arg | | |
| 465 | | | | | 470 | | | | 475 | | | | | | 480 | | |
| Arg | Tyr | Gly | Ala | Ala | Val | Val | Val | Met | Ala | Phe | Asp | Glu | Val | Gly | Gln | | |
| | | | 485 | | | | | 490 | | | | | | 495 | | | |
| Ala | Asp | Thr | Arg | Glu | Arg | Lys | Ile | Glu | Ile | Cys | Arg | Arg | Ala | Tyr | Lys | | |
| | | 500 | | | | | | 505 | | | | | 510 | | | | |
| Ile | Leu | Thr | Glu | Glu | Val | Gly | Phe | Pro | Pro | Glu | Asp | Ile | Ile | Phe | Asp | | |
| | | 515 | | | | 520 | | | | | | 525 | | | | | |
| Pro | Asn | Ile | Phe | Ala | Val | Ala | Thr | Gly | Ile | Glu | Glu | His | Asn | Asn | Tyr | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Ala | Gln | Asp | Phe | Ile | Gly | Ala | Cys | Glu | Asp | Ile | Lys | Arg | Glu | Leu | Pro | | |
| 545 | | | | | 550 | | | | 555 | | | | | | 560 | | |
| His | Ala | Leu | Ile | Ser | Gly | Gly | Val | Ser | Asn | Val | Ser | Phe | Ser | Phe | Arg | | |
| | | | 565 | | | | | 570 | | | | | | 575 | | | |
| Gly | Asn | Asp | Pro | Val | Arg | Glu | Ala | Ile | His | Ala | Val | Phe | Leu | Tyr | Tyr | | |
| | | 580 | | | | | 585 | | | | | | 590 | | | | |
| Ala | Ile | Arg | Asn | Gly | Met | Asp | Met | Gly | Ile | Val | Asn | Ala | Gly | Gln | Leu | | |
| | | 595 | | | | 600 | | | | | | 605 | | | | | |
| Ala | Ile | Tyr | Asp | Asp | Leu | Pro | Ala | Glu | Leu | Arg | Asp | Ala | Val | Glu | Asp | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Val | Ile | Leu | Asn | Arg | Arg | Asp | Asp | Ala | Thr | Glu | Arg | Met | Leu | Asp | Leu | | |
| 625 | | | | | 630 | | | | 635 | | | | | | 640 | | |
| Ala | Glu | Lys | Tyr | Arg | Gly | Ser | Lys | Ser | Asp | Glu | Ser | Ala | Asn | Val | Gln | | |
| | | | 645 | | | | | 650 | | | | | | 655 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Glu | Trp | Arg | Ser | Trp | Asp | Val | Asn | Lys | Arg | Leu | Glu | Tyr | Ser |
| Leu | Val | Lys | Gly | Ile | Thr | Glu | Phe | Ile | Glu | Gln | Asp | Thr | Glu | Glu | Ala |
| Arg | Gln | Gln | Ala | Ala | Arg | Pro | Ile | Glu | Val | Ile | Glu | Gly | Pro | Leu | Met |
| Asp | Gly | Met | Asn | Val | Val | Gly | Asp | Leu | Phe | Gly | Glu | Gly | Lys | Met | Phe |
| Leu | Pro | Gln | Val | Val | Lys | Ser | Ala | Arg | Val | Met | Lys | Gln | Ala | Val | Ala |
| Tyr | Leu | Glu | Pro | Phe | Ile | Glu | Ala | Ser | Lys | Glu | Lys | Gly | Ser | Ser | Asn |
| Gly | Lys | Met | Val | Ile | Ala | Thr | Val | Lys | Gly | Asp | Val | His | Asp | Ile | Gly |
| Lys | Asn | Ile | Val | Gly | Val | Val | Leu | Gln | Cys | Asn | Asn | Tyr | Glu | Ile | Ile |
| Asp | Leu | Gly | Val | Met | Val | Pro | Ala | Asp | Lys | Ile | Leu | Arg | Thr | Ala | Arg |
| Glu | Val | Asn | Ala | Asp | Leu | Ile | Gly | Leu | Ser | Gly | Leu | Ile | Thr | Pro | Ser |
| Leu | Asp | Glu | Met | Val | Asn | Val | Ala | Lys | Glu | Met | Glu | Arg | Gln | Gly | Phe |
| Thr | Ile | Pro | Leu | Leu | Ile | Gly | Gly | Ala | Thr | Thr | Ser | Lys | Ala | His | Thr |
| Ala | Val | Lys | Ile | Glu | Gln | Asn | Tyr | Ser | Gly | Pro | Thr | Val | Tyr | Val | Gln |
| Asn | Ala | Ser | Arg | Thr | Val | Gly | Val | Val | Ser | Ala | Leu | Leu | Ser | Asp | Thr |
| Gln | Arg | Asp | Asp | Phe | Val | Ala | Arg | Thr | Arg | Lys | Glu | Tyr | Glu | Thr | Val |
| Arg | Ile | Gln | His | Gly | Arg | Lys | Lys | Pro | Arg | Thr | Pro | Pro | Val | Ser | Leu |
| Gln | Ala | Ala | Arg | Glu | Asn | Asp | Leu | Ala | Phe | Asp | Trp | Ser | Ser | Tyr | Thr |
| Pro | Pro | Val | Ala | His | Arg | Leu | Gly | Val | Gln | Asp | Val | Thr | Ala | Ser | Ile |
| Glu | Thr | Leu | Arg | Asn | Tyr | Ile | Asp | Trp | Thr | Pro | Phe | Phe | Met | Thr | Trp |
| Ser | Leu | Ala | Gly | Lys | Tyr | Pro | Arg | Ile | Leu | Glu | Asp | Glu | Val | Val | Gly |
| Glu | Glu | Ala | Lys | Arg | Leu | Phe | Lys | Asp | Ala | Asn | Asp | Met | Leu | Asp | Arg |
| Leu | Ser | Ala | Glu | Lys | Ala | Leu | Asn | Pro | Arg | Gly | Val | Val | Gly | Leu | Phe |
| Pro | Ala | Asn | Arg | Val | Gly | Asp | Asp | Val | Glu | Ile | Tyr | Arg | Asp | Glu | Thr |
| Arg | Thr | His | Val | Leu | Ala | Val | Ser | His | His | Leu | Arg | Gln | Gln | Thr | Glu |
| Lys | Val | Gly | Phe | Ala | Asn | Tyr | Cys | Leu | Ala | Asp | Phe | Val | Ala | Pro | Lys |
| Leu | Ser | Gly | Lys | Ala | Asp | Tyr | Ile | Gly | Ala | Phe | Ala | Val | Thr | Gly | Gly |
| Leu | Glu | Glu | Asp | Ala | Leu | Ala | Asp | Ala | Tyr | Asp | Ala | Gln | His | Asp | Asp |
| Tyr | Asn | Lys | Ile | Met | Val | Lys | Ala | Ile | Ala | Asp | Arg | Leu | Ala | Glu | Ala |
| Phe | Ala | Glu | Tyr | Leu | His | Glu | Arg | Val | Arg | Lys | Val | His | Trp | Gly | Tyr |
| Ala | Ala | Asn | Glu | Asn | Leu | Ser | Asn | Glu | Glu | Leu | Ile | Arg | Glu | Asn | Tyr |
| Gln | Gly | Ile | Arg | Pro | Ala | Pro | Gly | Tyr | Pro | Ala | Cys | Pro | Glu | His | Thr |


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<210> 7626
<211> 318
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|---------|
| <400> 7626 | | | | | | | | | | | | | | | |
| Lys 1 | Thr | Arg | Leu | Ser 5 | Asn | Arg | Arg | Leu | Ile 10 | Phe | Phe | Ser | Ser | Pro 15 | Asn |
| Leu | Arg | Tyr | Ile 20 | Ser | Pro | Phe | Thr | Gly 25 | Glu | Thr | Met | Leu | Pro 30 | Thr | Gln |
| Ser | Thr | Arg 35 | Leu | Asn | Lys | Tyr 40 | Ile | Ser | Glu | Ser | Gly 45 | Ile | Cys | Ser | Arg |
| Arg | Glu 50 | Ala | Asp | Arg | Tyr 55 | Ile | Glu | Gln | Gly | Asn 60 | Val | Phe | Leu | Asn | Gly |
| Lys 65 | Arg | Ala | Thr | Ile 70 | Gly | Asp | Gln | Val | Val | Pro 75 | Gly | Asp | Val | Val | Lys 80 |
| Val | Asn | Gly | Gln 85 | Val | Ile | Glu | Pro | Arg | Asp 90 | Ala | Glu | Asp | Leu | Val | Phe 95 |
| Ile | Ala | Leu 100 | Asn | Lys | Pro | Val | Gly 105 | Ile | Val | Ser | Thr | Thr 110 | Glu | Asp | Gly |
| Glu | Arg | Asp 115 | Asn | Ile | Val | Asp | Phe 120 | Val | Asn | His | Ser | Ser 125 | Arg | Ile | Phe |
| Pro | Ile 130 | Gly | Arg | Leu | Asp | Lys 135 | Asp | Ser | Gln | Gly | Leu 140 | Ile | Phe | Leu | Thr |
| Asn 145 | His | Gly | Asp | Leu 150 | Val | Asn | Lys | Ile | Leu | Arg 155 | Ala | Gly | Asn | Asp | His 160 |
| Glu | Lys | Glu | Tyr 165 | Val | Thr | Val | Asn | Lys 170 | Pro | Val | Thr | Asp | Glu | Phe | 175 |
| Ile | Arg | Gly 180 | Met | Gly | Ala | Gly | Val 185 | Pro | Ile | Leu | Gly | Thr 190 | Val | Thr | Lys |
| Lys | Cys 195 | Lys | Val | Arg | Lys | Glu | Ala 200 | Pro | Phe | Ala | Phe | Arg 205 | Ile | Thr | Leu |
| Val | Gln 210 | Gly | Leu | Asn | Arg | Gln 215 | Ile | Arg | Arg | Met | Cys 220 | Glu | Tyr | Phe | Gly |
| Tyr 225 | Glu | Val | Thr | Lys 230 | Leu | Glu | Arg | Thr | Arg | Ile 235 | Met | Asn | Val | Ser | Leu |
| Ser | Gly | Ile | Pro 245 | Leu | Gly | Glu | Trp | Arg | Asp 250 | Leu | Thr | Asp | Asp | Glu | Leu |
| Ile | Glu | Leu 260 | Phe | Lys | Leu | Ile | Glu 265 | Asn | Ser | Ser | Ser | Glu 270 | Ala | Lys | Pro |
| Lys | Ala 275 | Lys | Ala | Lys | Pro | Lys | Thr 280 | Gln | Thr | Ile | Lys | Arg 285 | Pro | Val | Val |
| Lys | Ala 290 | Pro | Gln | Ala | Glu | Glu 295 | Lys | Gly | Arg | Gly | Lys 300 | Pro | Gly | Asn | Gly |
| Lys 305 | Arg | Phe | Thr | Gln 310 | Pro | Gly | Arg | Lys | Lys | Lys 315 | Gly | Arg | | | |

<210> 7627

<211> 75

<212> PRT

<213> Enterobacter cloacae

<400> 7627

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Ile | Thr | Pro | Ile | Cys | Tyr | Pro | Thr | Thr | Arg | Ala | Ser | Arg | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Arg | Ala | Phe | Ser | Thr | Pro | Ser | Ile | Ala | Gly | Tyr | Leu | Thr | Thr | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| His | Tyr | Leu | Leu | Ser | Gly | Tyr | Leu | Ser | Ser | Ala | Pro | Ser | Arg | Ser | Ala |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Val | Pro | Phe | Arg | Val | Arg | Trp | Arg | Lys | Ile | Ser | Phe | Pro | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Gly | Lys | Ser | Ser | Cys | Thr | Val | Ser | | | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 7628

<211> 543

<212> PRT

<213> Enterobacter cloacae

<400> 7628

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Gly | Ser | Leu | Met | Arg | Ser | Arg | Thr | Met | Thr | Gln | Gln | Ala | Thr | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Asp | Glu | Leu | Thr | Phe | Thr | Gln | Pro | Asn | Gly | Glu | Gln | Glu | Gln | Gln |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Val | Leu | Thr | Ala | Glu | Ala | Val | Glu | Phe | Leu | Thr | Glu | Leu | Val | Thr | Arg |
| | 35 | | | | | | 40 | | | | | 45 | | | |
| Phe | Thr | Pro | Gln | Arg | Asn | Lys | Leu | Leu | Ala | Ala | Arg | Ile | His | Gln | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Gly | Ile | Asp | Asn | Gly | Lys | Leu | Pro | Gly | Phe | Ile | Ser | Glu | Thr | Ala |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Ser | Ile | Arg | His | Gly | Asp | Trp | Lys | Ile | Arg | Gly | Ile | Pro | Glu | Asp | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Asp | Arg | Arg | Val | Glu | Ile | Thr | Gly | Pro | Val | Glu | Arg | Lys | Met | Val |
| | 100 | | | | | | | 105 | | | | | 110 | | |
| Ile | Asn | Ala | Met | Asn | Ala | Asn | Val | Lys | Val | Phe | Met | Ala | Asp | Phe | Glu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Asp | Ser | Leu | Ala | Pro | Asp | Trp | Gln | Lys | Val | Ile | Asp | Gly | Gln | Ile | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Arg | Asp | Ala | Val | Asn | Gly | Thr | Ile | Ser | Tyr | Thr | Asn | Glu | Ala | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Ile | Tyr | Gln | Leu | Lys | Pro | Asn | Pro | Ala | Val | Leu | Ile | Cys | Arg | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Gly | Leu | His | Leu | Pro | Glu | Lys | His | Val | Thr | Trp | Arg | Gly | Glu | Ala |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ile | Pro | Gly | Ser | Leu | Phe | Asp | Phe | Ala | Leu | Tyr | Phe | Phe | His | Asn | His |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Lys | Asn | Leu | Leu | Ala | Lys | Gly | Ser | Gly | Pro | Tyr | Phe | Tyr | Leu | Pro | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Gln | Ser | Trp | Gln | Glu | Ala | Ala | Trp | Trp | Ser | Glu | Val | Phe | Ser | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Glu | Asp | Arg | Phe | Ser | Leu | Pro | Arg | Gly | Thr | Ile | Lys | Ala | Thr | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Ile | Glu | Thr | Leu | Pro | Ala | Val | Phe | Gln | Met | His | Glu | Ile | Leu | His |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Ala | Leu | Arg | Asp | His | Ile | Val | Gly | Leu | Asn | Cys | Gly | Arg | Trp | Asp | Tyr |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ile | Phe | Ser | Tyr | Ile | Lys | Thr | Leu | Lys | Asn | His | Ala | Asp | Arg | Val | Leu |
| 290 | | | | | | 295 | | | | | 300 | | | | |

Pro Asp Arg Gln Val Val Thr Met Asp Lys Pro Phe Leu Ser Ala Tyr
 305 310 315 320
 Ser Arg Leu Leu Ile Lys Thr Cys His Lys Arg Gly Ala Phe Ala Met
 325 330 335
 Gly Gly Met Ala Ala Phe Ile Pro Ser Lys Asp Ala Glu Arg Asn Asn
 340 345 350
 His Val Leu Asn Lys Val Lys Ala Asp Lys Glu Leu Glu Ala Arg Asn
 355 360 365
 Gly His Asp Gly Thr Trp Ile Ala His Pro Gly Leu Ala Asp Thr Ala
 370 375 380
 Met Glu Val Phe Asn Arg Val Leu Gly Asp Asn Lys Asn Gln Leu Phe
 385 390 395 400
 Val Thr Arg Glu Asp Ala Pro Ile Ala Glu Glu Gln Leu Leu Ala
 405 410 415
 Pro Cys Ala Gly Glu Arg Thr Glu Glu Gly Met Arg Ala Asn Ile Arg
 420 425 430
 Val Ala Val Gln Tyr Ile Glu Ala Trp Ile Ser Gly Asn Gly Cys Val
 435 440 445
 Pro Ile Tyr Gly Leu Met Glu Asp Ala Ala Thr Ala Glu Ile Ser Arg
 450 455 460
 Thr Ser Ile Trp Gln Trp Ile His His Gln Lys Thr Leu Ser Asn Gly
 465 470 475 480
 Lys Pro Val Thr Lys Ala Leu Phe Arg Gln Met Leu Ala Glu Glu Met
 485 490 495
 Arg Val Ile Gln Asp Glu Leu Gly Glu His Arg Phe Ser Ser Gly Arg
 500 505 510
 Phe Asp Asp Ala Ala Arg Leu Met Glu Gln Ile Thr Thr Ser Asp Asp
 515 520 525
 Leu Ile Asp Phe Leu Thr Leu Pro Gly Tyr Arg Phe Leu Ala
 530 535 540

<210> 7629

<211> 549

<212> PRT

<213> Enterobacter cloacae

<400> 7629

Gly Gly Met Pro Thr Val Leu Thr Leu Leu His Leu Leu Ser Ala Val
 1 5 10 15
 Ala Leu Leu Val Trp Gly Thr His Ile Val Arg Thr Gly Val Met Arg
 20 25 30
 Val Phe Gly Ala Arg Leu Arg Thr Val Leu Ser Gly Ser Val Glu Lys
 35 40 45
 Lys Pro Leu Ala Phe Cys Ala Gly Ile Gly Val Thr Ala Leu Val Gln
 50 55 60
 Ser Ser Asn Ala Thr Thr Met Leu Val Thr Ser Phe Val Ala Gln Asp
 65 70 75 80
 Leu Val Ala Leu Ala Pro Ala Leu Val Ile Val Leu Gly Ala Asp Val
 85 90 95
 Gly Thr Ala Leu Met Ala Arg Ile Leu Thr Phe Asp Leu Ser Trp Leu
 100 105 110
 Ser Pro Leu Leu Ile Phe Ile Gly Val Ile Phe Phe Leu Gly Arg Lys
 115 120 125
 Gln Ser Arg Ala Gly Gln Leu Gly Arg Val Gly Ile Gly Leu Gly Leu
 130 135 140
 Ile Leu Leu Ala Leu Glu Leu Ile Val Gln Ala Val Thr Pro Ile Thr
 145 150 155 160
 Gln Ala Asn Gly Val Gln Val Ile Phe Ala Ser Leu Thr Gly Asp Ile
 165 170 175
 Met Leu Asp Ala Leu Ile Gly Ala Val Phe Ala Ile Val Ser Tyr Ser
 180 185 190

Ser Leu Ala Ala Val Leu Leu Thr Ala Thr Leu Thr Ala Ala Gly Val
 195 200 205
 Ile Ser Phe Pro Val Ala Leu Cys Leu Val Ile Gly Ala Asn Leu Gly
 210 215 220
 Ser Gly Leu Leu Ala Met Leu Asn Asn Ser Ala Ala Asn Ala Ala Ala
 225 230 235 240
 Arg Arg Val Ala Leu Gly Ser Leu Leu Phe Lys Leu Val Gly Ser Leu
 245 250 255
 Ile Ile Leu Pro Phe Val His Pro Leu Ala Asn Leu Met Asp Asn Leu
 260 265 270
 Ser Leu Pro Lys Ala Glu Leu Val Ile Tyr Phe His Val Phe Tyr Asn
 275 280 285
 Leu Val Arg Cys Leu Ala Met Val Pro Phe Ala Ala Pro Met Ala Arg
 290 295 300
 Phe Cys Glu Arg Leu Ile Arg Asp Glu Pro Glu Leu Asp Ala Arg Leu
 305 310 315 320
 Lys Pro Lys His Leu Asp Thr Ser Val Leu Asp Thr Pro Ala Leu Ala
 325 330 335
 Ile Ala Asn Ala Ala Arg Glu Thr Leu Arg Met Gly Asp Ala Met Glu
 340 345 350
 Thr Met Leu Glu Gly Leu Gln Lys Val Met His Gly Glu Pro Arg Glu
 355 360 365
 Glu Lys Glu Leu Arg Arg Leu Ala Asp Asp Ile Asn Val Leu Tyr Thr
 370 375 380
 Ala Ile Lys Leu Tyr Leu Ala Arg Ile Pro Gln Asp Glu Leu Ala Glu
 385 390 395 400
 Glu Glu Ser Arg Arg Trp Ala Glu Ile Ile Glu Met Ser Leu Asn Leu
 405 410 415
 Glu Gln Ala Ser Asp Ile Val Glu Arg Met Gly Ser Glu Ile Ala Asp
 420 425 430
 Lys Ser Leu Ala Ala Arg Arg Ala Phe Ser Val Glu Gly Leu Lys Glu
 435 440 445
 Leu Glu Ala Leu His Glu Gln Leu Val Ser Asn Leu Lys Leu Ala Met
 450 455 460
 Ser Val Phe Phe Ser Ser Asp Val Pro Ser Ala Arg Arg Leu Arg Arg
 465 470 475 480
 Asn Lys His Arg Phe Arg Ile Leu Asn Arg Arg Tyr Ser His Ala His
 485 490 495
 Val Glu Arg Leu His Gln Gln Asn Val Gln Ser Ile Glu Thr Ser Ser
 500 505 510
 Leu His Leu Gly Leu Leu Gly Asp Met Lys Arg Leu Asn Ser Leu Phe
 515 520 525
 Cys Ala Val Ala Tyr Ser Val Met Glu Gln Pro Asp Glu Asp Asp Glu
 530 535 540
 Arg Asp Glu Tyr
 545

<210> 7630

<211> 144

<212> PRT

<213> Enterobacter cloacae

<400> 7630

Ala Pro Phe Leu Ser Gly Glu Phe Ile Met Ala Lys Glu Phe Gly Arg
 1 5 10 15
 Pro Gln Arg Val Ala Gln Glu Met Gln Lys Glu Ile Ala Leu Ile Leu
 20 25 30
 Gln Arg Glu Ile Lys Asp Pro Arg Val Gly Met Met Thr Thr Val Ser
 35 40 45
 Gly Val Glu Met Ser Arg Asp Leu Ala Tyr Ala Lys Val Phe Val Thr
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Asn | Asp | Gln | Asp | Glu | Asp | Ala | Val | Lys | Asn | Gly | Ile | Lys | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Gln | Glu | Ala | Ser | Gly | Phe | Ile | Arg | Ser | Leu | Leu | Gly | Lys | Ala | Met |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Arg | Ile | Val | Pro | Glu | Leu | Thr | Phe | Phe | Tyr | Asp | Asn | Ser | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Glu | Gly | Met | Arg | Met | Ser | Asn | Leu | Val | Thr | Ser | Val | Val | Lys | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Asp | Glu | Arg | Arg | Val | Asn | Pro | Ala | Asp | Asp | Ser | Lys | Glu | Asp | |
| | 130 | | | | | 135 | | | | | 140 | | | | |

<210> 7631

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 7631

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Lys | Val | Thr | Lys | Gly | Asn | Ser | Ser | Val | Trp | Ala | Lys | Trp | Thr | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Gly | Val | Trp | Arg | Arg | Val | Val | Trp | Ser | Ser | Asn | Ile | Arg | Ser | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Asp | Gly | Asp | Asn | Ala | Leu | Pro | Cys | Asp | Lys | Gln | Gly | Arg | Arg | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Tyr | Arg | Arg | Leu | Thr | Pro | Gly | Lys | Leu | Phe | Asn | Asn | Leu | Arg | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | His | Gly | Ile | Ala | Glu | Leu | Glu | Ile | Gly | Ile | Leu | Thr | Phe | Phe | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Trp | Ser | Leu | Lys | Met | Ser | Leu | Ser | Val | Glu | Ala | Lys | Ala | Lys | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Ser | Glu | Phe | Gly | Arg | Gly | Thr | Asn | Asp | Ser | Gly | Ser | Thr | Glu | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Val | Ala | Leu | Leu | Thr | Ala | Gln | Ile | Asn | His | Leu | Gln | Gly | His | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Glu | His | Lys | Lys | Asp | His | His | Ser | Arg | Arg | Gly | Leu | Leu | Arg | Met |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Val | Ser | Gln | Arg | Arg | Lys | Leu | Leu | Asp | Tyr | Leu | Lys | Arg | Lys | Asp | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Arg | Tyr | Thr | Ala | Leu | Ile | Glu | Arg | Leu | Gly | Leu | Arg | Arg | | |
| | | | | 165 | | | | | 170 | | | | | 175 | |

<210> 7632

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7632

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asp | Tyr | Ser | Tyr | Gln | Gly | Val | Lys | Leu | Val | Leu | Asp | Lys | Leu | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Arg | Leu | Val | Gln | Phe | Gly | Pro | Ser | Met | Leu | Ser | Val | Pro | Val | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Pro | Phe | Ala | Leu | Lys | Arg | Gln | Val | Leu | Glu | Gln | Val | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Gln | Phe | Arg | Gln | Ala | Leu | Gln | Asp | Gly | Glu | Leu | Glu | Phe | Leu | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Arg | Trp | Leu | Lys | Ile | Glu | Val | Arg | Asp | Ile | Gly | Leu | Arg | Trp | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ser | Val | Glu | Asn | Asp | Arg | Leu | Ile | Val | Arg | Glu | Thr | Ala | Glu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Val | Ser | Phe | Ser | Ala | Asp | Ala | Ser | Asp | Leu | Leu | Met | Ile | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Lys | Gln | Asp | Pro | Asp | Thr | Leu | Phe | Phe | Gln | Arg | Arg | Leu | Val | Ile |


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<210> 7633
<211> 164
<212> PRT
<213> Enterobacter cloacae
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<210> 7634
<211> 337
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> 7634 | | | | | | | | | | | | | | | | |
| Thr | Ala | Arg | Arg | Val | Arg | Leu | Pro | Phe | Ala | Leu | Arg | Ala | Gly | Gly | Gly | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Leu | Ile | Ile | Arg | Gln | Asp | Ala | Leu | Leu | Ser | Arg | Arg | Gly | Thr | Gly | Arg | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ser | Ser | Asn | Ser | Cys | Leu | Arg | Glu | Trp | Glu | Met | Lys | Pro | Phe | Leu | Arg | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Trp | Cys | Phe | Val | Ala | Thr | Ala | Leu | Thr | Leu | Ala | Gly | Cys | Ser | Asn | Ser | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Ala | Trp | Arg | Lys | Ser | Glu | Val | Leu | Ala | Val | Pro | Leu | Gln | Pro | Thr | Leu | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Gln | Gln | Glu | Val | Ile | Leu | Ala | Arg | Met | Glu | Gln | Ile | Leu | Ala | Ser | Arg | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Ala | Leu | Thr | Asp | Asp | Glu | Arg | Ala | Gln | Leu | Leu | Tyr | Glu | Arg | Gly | Val | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Leu | Tyr | Asp | Ser | Leu | Gly | Leu | Arg | Ala | Leu | Ala | Arg | Asn | Asp | Phe | Ser | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |

Gln Ala Leu Ala Ile Arg Pro Asp Met Pro Glu Val Phe Asn Tyr Leu
 130 135 140
 Gly Ile Tyr Leu Thr Gln Ala Gly Asn Phe Asp Ala Ala Tyr Glu Ala
 145 150 155 160
 Phe Asp Ser Val Leu Glu Leu Asp Pro Thr Tyr Asn Tyr Ala His Leu
 165 170 175
 Asn Arg Gly Ile Ala Leu Tyr Tyr Gly Gly Arg Asp Lys Leu Ala Gln
 180 185 190
 Asp Asp Leu Leu Ala Phe Tyr Gln Asp Asp Pro Asn Asp Pro Phe Arg
 195 200 205
 Ser Leu Trp Leu Tyr Ile Val Glu Gln Lys Leu Asp Glu Lys Gln Ala
 210 215 220
 Lys Glu Ala Leu Lys Gln Arg Phe Glu Lys Ser Asp Lys Glu Gln Trp
 225 230 235 240
 Gly Trp Asn Ile Val Glu Phe Tyr Leu Gly Asn Ile Ser Glu Ala Thr
 245 250 255
 Leu Met Glu Arg Leu Lys Ala Asp Ala Thr Asp Asn Thr Ser Leu Ala
 260 265 270
 Glu His Leu Ser Glu Thr Asn Phe Tyr Leu Gly Lys Tyr Tyr Leu Ser
 275 280 285
 Leu Gly Asp Met Asp Ser Ala Thr Ala Leu Phe Lys Leu Ala Val Ala
 290 295 300
 Asn Asn Val His Asn Phe Val Glu His Arg Tyr Ala Leu Leu Glu Leu
 305 310 315 320
 Ser Leu Leu Gly Gln Glu Gln Asp Asp Leu Ala Glu Ser Asp Gln Gln
 325 330 335

<210> 7635

<211> 645

<212> PRT

<213> Enterobacter cloacae

<400> 7635

Val Asp Trp Pro Pro Leu Ile Ser Arg His Leu Tyr Tyr Met Ala Glu
 1 5 10 15
 Phe Glu Thr Thr Phe Ala Asp Leu Gly Leu Lys Ala Pro Ile Leu Glu
 20 25 30
 Ala Leu Asn Asp Leu Gly Tyr Glu Lys Pro Ser Pro Ile Gln Ala Glu
 35 40 45
 Cys Ile Pro His Leu Leu Ser Gly Arg Asp Val Leu Gly Met Ala Gln
 50 55 60
 Thr Gly Ser Gly Lys Thr Ala Ala Phe Ser Leu Pro Leu Leu Asn Asn
 65 70 75 80
 Ile Asp Pro Asp Leu Arg Ala Pro Gln Ile Leu Val Leu Ala Pro Thr
 85 90 95
 Arg Glu Leu Ala Val Gln Val Ala Glu Ala Met Thr Glu Phe Ser Lys
 100 105 110
 His Met Arg Gly Val Asn Val Val Ala Leu Tyr Gly Gly Gln Arg Tyr
 115 120 125
 Asp Val Gln Leu Arg Ala Leu Arg Gln Gly Pro Gln Ile Val Val Gly
 130 135 140
 Thr Pro Gly Arg Leu Leu Asp His Leu Lys Arg Gly Thr Leu Asp Leu
 145 150 155 160
 Ser Lys Leu Ser Gly Leu Val Leu Asp Glu Ala Asp Glu Met Leu Arg
 165 170 175
 Met Gly Phe Ile Glu Asp Val Glu Thr Ile Met Ala Gln Ile Pro Glu
 180 185 190
 Gly His Gln Thr Ala Leu Phe Ser Ala Thr Met Pro Glu Ala Ile Arg
 195 200 205

Arg Ile Thr Arg Arg Phe Met Lys Glu Pro Gln Glu Val Arg Ile Gln
 210 215 220
 Ser Ser Val Thr Thr Arg Pro Asp Ile Ser Gln Ser Tyr Trp Ser Val
 225 230 235 240
 Tyr Gly Met Arg Lys Asn Glu Ala Leu Val Arg Phe Leu Glu Ala Glu
 245 250 255
 Asp Phe Asp Ala Ala Ile Ile Phe Val Arg Thr Lys Asn Ala Thr Leu
 260 265 270
 Glu Val Ala Glu Ala Leu Glu Arg Ser Gly Tyr Asn Ser Ala Ala Leu
 275 280 285
 Asn Gly Asp Met Asn Gln Ala Leu Arg Glu Gln Thr Leu Glu Arg Leu
 290 295 300
 Lys Asp Gly Arg Leu Asp Ile Leu Ile Ala Thr Asp Val Ala Ala Arg
 305 310 315 320
 Gly Leu Asp Val Glu Arg Ile Ser Leu Val Val Asn Tyr Asp Ile Pro
 325 330 335
 Met Asp Ser Glu Ser Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala
 340 345 350
 Gly Arg Ala Gly Arg Ala Leu Leu Phe Val Glu Asn Arg Glu Arg Arg
 355 360 365
 Leu Leu Arg Asn Ile Glu Arg Ser Met Lys Leu Thr Ile Pro Glu Ala
 370 375 380
 Glu Leu Pro Asn Ala Lys Leu Leu Gly Lys Arg Arg Leu Glu Lys Phe
 385 390 395 400
 Ala Ala Arg Val Gln Gln Gln Leu Glu Ser Ile Asp Leu Asp Gln Tyr
 405 410 415
 Arg Ala Leu Leu Ser Gln Ile Gln Pro Val Ala Glu Gly Glu Glu Leu
 420 425 430
 Asp Met Glu Thr Leu Ala Ala Ala Leu Leu Lys Met Ala Gln Gly Glu
 435 440 445
 Arg Ser Leu Ile Val Pro Pro Asp Ala Pro Met Arg Pro Lys Arg Glu
 450 455 460
 Phe Arg Asp Arg Asp Asp Arg Phe Glu Arg Arg Gly Asp Arg Asn Asp
 465 470 475 480
 Arg Gly Pro Arg Gly Asp Arg Pro Glu Arg Gly Gly Glu Asp Arg Pro
 485 490 495
 Arg Arg Glu Arg Arg Asp Ala Gly Glu Met Glu Leu Tyr Arg Ile Glu
 500 505 510
 Val Gly Arg Asp Asp Gly Val Glu Val Arg His Ile Val Gly Ala Ile
 515 520 525
 Ala Asn Glu Gly Asp Ile Ser Ser Arg Tyr Ile Gly Asn Ile Lys Leu
 530 535 540
 Phe Gly Ser His Ser Thr Ile Glu Leu Pro Lys Gly Met Pro Gly Glu
 545 550 555 560
 Val Leu Gln His Phe Thr Arg Thr Arg Ile Leu Asn Lys Pro Met Asn
 565 570 575
 Met Gln Leu Leu Gly Asp Ala Gln Pro Arg Pro Asp Arg Gly Gly Glu
 580 585 590
 Arg Arg Gly Gly Gly Arg Gly Phe Gly Gly Glu Arg Arg Glu Gly Gly
 595 600 605
 Arg Ser Glu Gly Arg Gly Gly Glu Gly Arg Arg Phe Ser Gly Glu Arg
 610 615 620
 Arg Glu Asn Arg Gly Pro Arg Arg Glu Glu Gly Ala Ser Arg Arg Arg
 625 630 635 640
 Phe Gly Asp Ala
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<210> 7636

<211> 241

<212> PRT

<213> Enterobacter cloacae

<400> 7636

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Ala Asn Gly Gln Phe Cys Lys Gly Asp Lys Met Ser Gln Val Leu Ile
   20                      25                      30
Thr Gly Ala Thr Gly Leu Val Gly Gly His Leu Leu Arg Leu Leu Ile
   35                      40                      45
Gln Asp Arg His Ile Asn Tyr Ile Ala Ala Pro Thr Arg Arg Pro Leu
   50                      55                      60
Leu Asp Ile Thr Gly Val Tyr Asn Pro His Asp Pro Gln Leu Thr Asp
   65                      70                      75                      80
Ala Leu Ala Gln Val Gln Asp Pro Ile Asp Ile Ala Phe Cys Cys Leu
   85                      90                      95
Gly Thr Thr Arg Arg Glu Ala Gly Ser Lys Glu Ala Phe Val His Ala
  100                      105                      110
Asp Tyr Thr Leu Val Val Asp Thr Ala Leu Thr Ala Lys Lys Leu Gly
  115                      120                      125
Ala Lys His Phe Leu Val Val Ser Ala His Gly Ala Asn Ala Gly Ser
  130                      135                      140
Pro Phe Phe Tyr Asn Gln Val Lys Gly Lys Met Glu Glu Ala Leu Ile
  145                      150                      155                      160
Ala Gln Lys Trp Glu Arg Leu Thr Ile Ala Arg Pro Ser Met Leu Met
  165                      170                      175
Gly His Arg Asp Glu Arg Arg Phe Asn Glu Ser Phe Phe Ala Pro Leu
  180                      185                      190
Phe Arg Ile Leu Pro Gly Asn Trp Lys Ser Ile Glu Ala Arg Asp Val
  195                      200                      205
Ala Leu Ala Met Leu Lys Glu Ala Leu Ala Pro Ser Gln Glu Gly Val
  210                      215                      220
Asn Ile Ile Pro Ser Ala Lys Leu Arg Glu Ile Ala Gln Gly Glu Ala
  225                      230                      235                      240

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<210> 7637

<211> 506

<212> PRT

<213> Enterobacter cloacae

<400> 7637

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Val Ser Asn Glu Lys Ser Leu Pro Arg Glu Lys Ile Phe Glu Ala Leu
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Glu Ser Ala Leu Ala Thr Ala Thr Lys Lys Lys Tyr Glu Gln Glu Ile
  35                      40                      45
Asp Val Arg Val Glu Ile Asp Arg Lys Ser Gly Asp Phe Asp Thr Phe
  50                      55                      60
Arg Arg Trp Val Ile Val Glu Glu Val Thr Gln Pro Thr Lys Glu Ile
  65                      70                      75                      80
Thr Leu Glu Ala Ala Arg Phe Glu Asp Glu Ser Leu Asn Val Gly Asp
  85                      90                      95
Tyr Val Glu Asp Gln Ile Glu Ser Val Thr Phe Asp Arg Ile Thr Thr
  100                      105                      110
Gln Thr Ala Lys Gln Val Ile Val Gln Lys Val Arg Glu Ala Glu Arg
  115                      120                      125
Ala Leu Val Val Asp Gln Phe Arg Asp Gln Glu Gly Glu Ile Ile Thr
  130                      135                      140
Gly Val Val Lys Lys Val Asn Arg Asp Asn Ile Ser Leu Glu Ile Lys
  145                      150                      155                      160

```


Ser Glu Gly Leu Pro Gly Asn Ala Glu Ala Val Ile Leu Arg Glu Asp
 165 170 175
 Met Leu Pro Arg Glu Asn Phe Arg Pro Gly Asp Arg Ile Arg Gly Val
 180 185 190
 Leu Tyr Ala Val Arg Pro Glu Ala Arg Gly Ala Gln Leu Phe Val Thr
 195 200 205
 Arg Ser Lys Pro Glu Met Leu Val Glu Leu Phe Arg Ile Glu Val Pro
 210 215 220
 Glu Ile Gly Glu Glu Val Ile Glu Ile Lys Ala Ala Ala Arg Asp Pro
 225 230 235 240
 Gly Ser Arg Ala Lys Ile Ala Val Lys Thr Asn Asp Lys Arg Ile Asp
 245 250 255
 Pro Val Gly Ala Cys Val Gly Met Arg Gly Ala Arg Val Gln Ala Val
 260 265 270
 Ser Thr Glu Leu Gly Gly Glu Arg Ile Asp Ile Val Leu Trp Asp Asp
 275 280 285
 Asn Pro Ala Gln Phe Val Ile Asn Ala Met Ala Pro Ala Asp Val Ala
 290 295 300
 Ser Ile Val Val Asp Glu Asp Lys His Thr Met Asp Ile Ala Val Glu
 305 310 315 320
 Ala Gly Asn Leu Ala Gln Ala Ile Gly Arg Asn Gly Gln Asn Val Arg
 325 330 335
 Leu Ala Ser Gln Leu Ser Gly Trp Glu Leu Asn Val Met Thr Val Asp
 340 345 350
 Asp Leu Gln Ala Lys His Gln Ala Glu Ala His Ala Ala Ile Asp Thr
 355 360 365
 Phe Thr Lys Tyr Leu Asp Ile Asp Glu Asp Phe Ala Thr Val Leu Val
 370 375 380
 Glu Glu Gly Phe Ser Thr Leu Glu Glu Leu Ala Tyr Val Pro Met Lys
 385 390 395 400
 Glu Leu Leu Glu Ile Asp Gly Leu Asp Glu Pro Thr Val Glu Ala Leu
 405 410 415
 Arg Glu Arg Ala Lys Asn Ala Leu Thr Thr Leu Ala Leu Ala Gln Glu
 420 425 430
 Glu Ser Leu Gly Asp Lys Lys Pro Ala Asp Asp Leu Leu Asn Leu Glu
 435 440 445
 Gly Leu Asp Arg Ala Ile Ala Phe Lys Leu Ala Ala Arg Gly Val Cys
 450 455 460
 Thr Leu Glu Asp Leu Ala Glu Gln Gly Val Asp Asp Leu Ala Asp Ile
 465 470 475 480
 Glu Gly Leu Thr Asp Glu Lys Ala Gly Glu Leu Ile Met Ala Ala Arg
 485 490 495
 Asn Ile Cys Trp Phe Gly Asp Glu Ala
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<210> 7638

<211> 903

<212> PRT

<213> Enterobacter cloacae

<400> 7638

Thr Val Ala Gly Arg Asn Ser Met Thr Asp Val Thr Val Lys Ser Leu
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 20 25 30
 Asp Ala Gly Ile Pro Lys Ser Ala Asp Asp Ser Val Thr Ala Gln Glu
 35 40 45
 Lys Gln Thr Leu Leu Ala His Leu Asn Arg Glu His Gly Ser Thr Pro
 50 55 60
 Asp Lys Leu Thr Leu Gln Arg Lys Thr Arg Ser Thr Leu Asn Ile Pro
 65 70 75 80

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Thr | Gly | Gly | Lys | Ser | Lys | Ser | Val | Gln | Ile | Glu | Val | Arg | Lys | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Thr | Phe | Val | Lys | Arg | Asp | Pro | Gln | Glu | Ala | Glu | Arg | Leu | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Glu | Gln | Ala | Gln | Arg | Glu | Ala | Glu | Glu | Gln | Ala | Gln | Arg | Glu | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Ala | Thr | Ala | Lys | Arg | Glu | Ala | Glu | Leu | Lys | Ala | Glu | Arg | Glu | Ala |
| | | 130 | | | | | 135 | | | | | 140 | | | |
| Ala | Glu | Lys | Ala | Lys | Arg | Asp | Ala | Gly | Glu | Lys | Ala | Lys | Arg | Asp | Ala |
| 145 | | | | | | 150 | | | | | 155 | | | | 160 |
| Ala | Glu | Lys | Asp | Lys | Val | Ser | Asn | Gln | Gln | Thr | Asp | Glu | Met | Thr | Lys |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Thr | Ala | Gln | Ala | Glu | Lys | Ala | Arg | Arg | Glu | Asn | Glu | Ala | Ala | Glu | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Arg | Lys | Ala | Glu | Glu | Glu | Ala | Arg | Arg | Lys | Leu | Glu | Glu | Glu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Arg | Val | Ala | Glu | Glu | Ala | Arg | Arg | Met | Ala | Glu | Glu | Asn | Glu | Lys |
| | | 210 | | | | | 215 | | | | 220 | | | | |
| Asn | Gly | Val | Asn | Thr | Ala | Glu | Pro | Thr | Glu | Asp | Thr | Ser | Asp | Tyr | His |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Thr | Thr | Ser | Gln | His | Ala | Arg | Gln | Ala | Glu | Asp | Asp | Asn | Asp | Arg |
| | | | | 245 | | | | 250 | | | | | | 255 | |
| Glu | Val | Glu | Gly | Gly | Arg | Gly | Arg | Thr | Arg | Ser | Ala | Lys | Ala | Ala | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Ala | Lys | Lys | Gly | Asn | Lys | His | Ala | Glu | Ser | Lys | Ala | Asp | Arg | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Ala | Arg | Ala | Ala | Val | Arg | Gly | Gly | Lys | Gly | Gly | Lys | Arg | Lys | Gly |
| | | 290 | | | | | 295 | | | | 300 | | | | |
| Ser | Ala | Leu | Gln | Gln | Gly | Phe | Gln | Lys | Pro | Ala | Gln | Ala | Val | Asn | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Val | Val | Ile | Gly | Glu | Thr | Ile | Thr | Val | Gly | Glu | Leu | Ala | Asn | Lys |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Met | Ala | Val | Lys | Gly | Ser | Gln | Val | Ile | Lys | Ala | Met | Met | Lys | Leu | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Met | Ala | Thr | Ile | Asn | Gln | Val | Ile | Asp | Gln | Glu | Thr | Ala | Gln | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Val | Ala | Glu | Glu | Met | Gly | His | Lys | Val | Ile | Leu | Arg | Arg | Glu | Asn | Glu |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Leu | Glu | Glu | Ala | Val | Met | Ser | Asp | Arg | Asp | Thr | Gly | Ala | Ala | Ala | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | Arg | Ala | Pro | Val | Val | Thr | Ile | Met | Gly | His | Val | Asp | His | Gly | Lys |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Thr | Ser | Leu | Leu | Asp | Tyr | Ile | Arg | Ser | Thr | Lys | Val | Ala | Ser | Gly | Glu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ala | Gly | Gly | Ile | Thr | Gln | His | Ile | Gly | Ala | Tyr | His | Val | Glu | Thr | Glu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asn | Gly | Met | Ile | Thr | Phe | Leu | Asp | Thr | Pro | Gly | His | Ala | Ala | Phe | Thr |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Ser | Met | Arg | Ala | Arg | Gly | Ala | Gln | Ala | Thr | Asp | Ile | Val | Val | Leu | Val |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Val | Ala | Ala | Asp | Asp | Gly | Val | Met | Pro | Gln | Thr | Ile | Glu | Ala | Ile | Gln |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| His | Ala | Lys | Ala | Ala | Gln | Val | Pro | Leu | Val | Val | Ala | Val | Asn | Lys | Ile |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Asp | Lys | Pro | Glu | Ala | Asp | Met | Asp | Arg | Val | Lys | Asn | Glu | Leu | Ser | Gln |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Tyr | Gly | Val | Met | Pro | Glu | Glu | Trp | Gly | Gly | Glu | Ala | Gln | Phe | Ile | Pro |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Val | Ser | Ala | Lys | Ala | Gly | Thr | Gly | Ile | Asp | Asp | Leu | Leu | Asn | Ala | Ile |
| 545 | | | | | 550 | | | | 555 | | | | | | 560 |
| Leu | Leu | Gln | Ala | Glu | Val | Leu | Glu | Leu | Lys | Ala | Val | Arg | Lys | Gly | Met |


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<210> 7639
<211> 326
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gly | Gly | Arg | Gln | Gln | Gly | Gly | Leu | Met | Ser | Arg | Pro | Arg | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Arg | Asp | Val | His | Gly | Val | Leu | Leu | Leu | Asp | Lys | Pro | Gln | Gly | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ser | Asn | Asp | Val | Leu | Gln | Lys | Val | Lys | Arg | Ile | Tyr | Asn | Ala | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ala | Gly | His | Thr | Gly | Ala | Leu | Asp | Pro | Leu | Ala | Thr | Gly | Met | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ile | Cys | Leu | Gly | Glu | Ala | Thr | Lys | Phe | Ser | Gln | Tyr | Leu | Leu | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Asp | Lys | Arg | Tyr | Arg | Val | Ile | Ala | Lys | Leu | Gly | Gln | Arg | Thr | Asp |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | 90 | | | | | 95 | | | | |
| Thr | Ser | Asp | Ala | Asp | Gly | Gln | Val | Val | Glu | Glu | Arg | Pro | Val | Thr | Phe | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Ser | Ala | Glu | Gln | Leu | Asp | Ala | Ala | Leu | Asp | Ser | Phe | Arg | Gly | Asp | Thr | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Gln | Val | Pro | Ser | Met | Tyr | Ser | Ala | Leu | Lys | Tyr | Gln | Gly | Lys | Lys | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Leu | Tyr | Glu | Tyr | Ala | Arg | Gln | Gly | Ile | Glu | Val | Pro | Arg | Glu | Ala | Arg | | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | | |
| Pro | Ile | Thr | Val | Tyr | Glu | Leu | Leu | Phe | Ile | Arg | His | Glu | Gly | Asp | Glu | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Leu | Glu | Leu | Glu | Val | His | Cys | Ser | Lys | Gly | Thr | Tyr | Ile | Arg | Thr | Ile | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Ile | Asp | Asp | Leu | Gly | Glu | Lys | Leu | Gly | Cys | Gly | Ala | His | Val | Ile | Tyr | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Arg | Arg | Leu | Ala | Val | Ser | Lys | Tyr | Pro | Val | Glu | Arg | Met | Val | Thr | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Leu | Glu | His | Leu | His | Ala | Leu | Ile | Glu | Gln | Ala | Gln | Ala | Gln | Gly | Val | | |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 | | |
| Ala | Pro | Ala | Asp | Leu | Leu | Asp | Pro | Leu | Leu | Met | Pro | Met | Asp | Ser | Pro | | |
| | | | 245 | | | | | 250 | | | | | 255 | | | | |
| Ala | Val | Asp | Phe | Pro | Val | Val | Asn | Leu | Pro | Leu | Thr | Ser | Ser | Val | Tyr | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Phe | Lys | Asn | Gly | Asn | Pro | Val | Arg | Thr | Thr | Gly | Ala | Pro | Leu | Glu | Gly | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Leu | Val | Arg | Val | Thr | Glu | Gly | Asp | Glu | Gly | Lys | Phe | Ile | Gly | Met | Gly | | |
| | | 290 | | | | 295 | | | | | 300 | | | | | | |
| Glu | Met | Asp | Gly | Glu | Gly | Arg | Val | Ala | Pro | Arg | Arg | Leu | Val | Val | Glu | | |
| 305 | | | | | 310 | | | | 315 | | | | | | 320 | | |
| Tyr | Pro | Val | Glu | Ala | | | | | | | | | | | | | |
| | | | | 325 | | | | | | | | | | | | | |

<210> 7640

<211> 740

<212> PRT

<213> Enterobacter cloacae

<400> 7640

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| Ser | Arg | Gly | Cys | Glu | Glu | Gly | Arg | Val | Lys | Ser | Ser | Ala | His | Leu | Arg | | |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | | | |
| Cys | Ala | Phe | Lys | His | Leu | Arg | Lys | Asp | Arg | Thr | Leu | Leu | Asn | Pro | Ile | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Val | Arg | Lys | Phe | Gln | Tyr | Gly | Gln | His | Thr | Val | Thr | Leu | Glu | Thr | Gly | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Met | Met | Ala | Arg | Gln | Ala | Thr | Ala | Ala | Val | Met | Val | Ser | Met | Asp | Asp | | |
| | | 50 | | | | 55 | | | | 60 | | | | | | | |
| Thr | Ala | Val | Phe | Val | Thr | Val | Val | Gly | Gln | Lys | Lys | Ala | Lys | Pro | Gly | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Gln | Asp | Phe | Phe | Pro | Leu | Thr | Val | Asn | Tyr | Gln | Glu | Arg | Thr | Tyr | Ala | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Ala | Gly | Lys | Ile | Pro | Gly | Gly | Phe | Phe | Arg | Arg | Glu | Gly | Arg | Pro | Ser | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Glu | Gly | Glu | Thr | Leu | Ile | Ala | Arg | Leu | Ile | Asp | Arg | Pro | Val | Arg | Pro | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Leu | Phe | Pro | Glu | Gly | Phe | Val | Asn | Glu | Val | Gln | Val | Ile | Ala | Thr | Val | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Val | Ser | Val | Asn | Pro | Gln | Val | Asn | Pro | Asp | Ile | Val | Ala | Met | Ile | Gly | | |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 | | |
| Ala | Ser | Ala | Ala | Leu | Ser | Leu | Ser | Gly | Ile | Pro | Phe | Asn | Gly | Pro | Ile | | |
| | | | 165 | | | | | 170 | | | | | 175 | | | | |
| Gly | Ala | Ala | Arg | Val | Gly | Tyr | Ile | Asn | Asp | Gln | Tyr | Val | Leu | Asn | Pro | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Gln | Glu | Glu | Leu | Lys | Glu | Ser | Lys | Leu | Asp | Leu | Val | Val | Ala | Gly | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Thr | Glu | Ala | Ala | Val | Leu | Met | Val | Glu | Ser | Glu | Ala | Glu | Leu | Leu | Ser | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Glu | Asp | Gln | Met | Leu | Gly | Ala | Val | Val | Phe | Gly | His | Asp | Gln | Gln | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Val | Val | Ile | Gln | Asn | Ile | Asn | Asp | Leu | Val | Lys | Glu | Ala | Gly | Lys | Pro | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Arg | Trp | Asp | Trp | Gln | Pro | Glu | Ala | Ala | Asn | Asp | Ala | Leu | Asn | Ala | Arg | |
| | | | 260 | | | | 265 | | | | | | 270 | | | |
| Val | Ala | Ala | Leu | Ala | Glu | Ser | Arg | Leu | Ser | Asp | Ala | Tyr | Arg | Ile | Thr | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Asp | Lys | Gln | Glu | Arg | Tyr | Ala | Gln | Val | Asp | Val | Ile | Lys | Ser | Glu | Val | |
| | 290 | | | | | 295 | | | | 300 | | | | | | |
| Thr | Ala | Thr | Leu | Val | Ala | Glu | Asp | Glu | Thr | Leu | Asp | Ala | Asn | Glu | Ile | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Gly | Glu | Ile | Leu | His | Ala | Ile | Glu | Lys | Asn | Val | Val | Arg | Ser | Arg | Val | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Leu | Ala | Gly | Glu | Pro | Arg | Ile | Asp | Gly | Arg | Glu | Lys | Asp | Met | Ile | Arg | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Gly | Leu | Asp | Val | Arg | Thr | Gly | Val | Leu | Pro | Arg | Thr | His | Gly | Ser | Ala | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Leu | Phe | Thr | Arg | Gly | Glu | Thr | Gln | Ala | Leu | Val | Thr | Ala | Thr | Leu | Gly | |
| | 370 | | | | | 375 | | | | 380 | | | | | | |
| Thr | Ala | Arg | Asp | Ala | Gln | Ile | Ile | Asp | Glu | Leu | Met | Gly | Glu | Arg | Thr | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Asp | Ser | Phe | Leu | Phe | His | Tyr | Asn | Phe | Pro | Pro | Tyr | Ser | Val | Gly | Glu | |
| | | | | 405 | | | | 410 | | | | | | 415 | | |
| Thr | Gly | Met | Val | Gly | Ser | Pro | Lys | Arg | Arg | Glu | Ile | Gly | His | Gly | Arg | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Leu | Ala | Lys | Arg | Gly | Val | Leu | Ala | Val | Met | Pro | Glu | Ala | Asp | Lys | Phe | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Pro | Tyr | Thr | Val | Arg | Val | Val | Ser | Glu | Ile | Thr | Glu | Ser | Asn | Gly | Ser | |
| | 450 | | | | | 455 | | | | | 460 | | | | | |
| Ser | Ser | Met | Ala | Ser | Val | Cys | Gly | Ala | Ser | Leu | Ala | Leu | Met | Asp | Ala | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Gly | Val | Pro | Ile | Lys | Ala | Ala | Val | Ala | Gly | Ile | Ala | Met | Gly | Leu | Val | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Lys | Glu | Gly | Asp | Asn | Tyr | Val | Val | Leu | Ser | Asp | Ile | Leu | Gly | Asp | Glu | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Asp | His | Leu | Gly | Asp | Met | Asp | Phe | Lys | Val | Ala | Gly | Ser | Arg | Asp | Gly | |
| | | 515 | | | | | | | | | | | | | | |

Glu Gly Leu Val His Ile Ser Gln Ile Ala Asp Lys Arg Val Glu Lys
 675 680 685
 Val Thr Asp Tyr Leu Gln Met Gly Gln Glu Val Pro Val Lys Val Leu
 690 695 700
 Glu Val Asp Arg Gln Gly Arg Ile Arg Leu Ser Ile Lys Glu Ala Thr
 705 710 715 720
 Glu Gln Ser Gln Pro Ala Ala Ala Pro Glu Ala Pro Ala Ala Glu Gln
 725 730 735
 Gln Gly Glu
 740

<210> 7641

<211> 417

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (387)

<400> 7641

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 Ser Leu Pro Val Val Met Ser Gly Ala Trp Phe Phe Trp Ser Leu Ala
 35 40 45
 Ala Leu Val Phe Thr Trp Phe Cys Met Leu His Ser Gly Leu Met Ile
 50 55 60
 Leu Glu Ala Asn Leu Asn Tyr Arg Ile Gly Ser Ser Phe Asp Thr Leu
 65 70 75 80
 Thr Arg Asp Leu Leu Gly Lys Gly Trp Asn Leu Val Asn Gly Leu Ser
 85 90 95
 Ile Ala Phe Val Leu Tyr Ile Leu Thr Tyr Ala Tyr Ile Ser Ala Ser
 100 105 110
 Gly Ser Ile Leu His His Thr Phe Ser Glu Met Ser Leu Asn Val Pro
 115 120 125
 Ala Arg Leu Ala Gly Leu Cys Phe Ala Leu Gly Val Ala Phe Ile Val
 130 135 140
 Trp Met Ser Thr Lys Ala Val Ser Arg Met Thr Ala Ile Val Leu Gly
 145 150 155 160
 Ala Lys Val Ile Thr Phe Phe Leu Thr Phe Gly Ser Leu Leu Gly His
 165 170 175
 Val Thr Pro Ala Thr Leu Phe Asn Val Ala Glu Thr Asn Thr Ser Tyr
 180 185 190
 Thr Pro Tyr Leu Leu Met Thr Leu Pro Phe Cys Leu Ala Ser Phe Gly
 195 200 205
 Tyr His Gly Asn Val Pro Ser Leu Met Lys Tyr Tyr Gly Lys Asp Pro
 210 215 220
 Arg Thr Ile Val Lys Cys Leu Val Tyr Gly Thr Leu Leu Ala Leu Ala
 225 230 235 240
 Leu Tyr Val Ile Trp Leu Leu Gly Thr Met Gly Asn Ile Pro Arg Pro
 245 250 255
 Glu Phe Ile Gly Ile Ala Gln Lys Gly Gly Asn Ile Asp Val Leu Val
 260 265 270
 Gln Ala Leu Gly Gly Val Leu Asn Ser His Ser Leu Asp Leu Leu Leu
 275 280 285
 Val Val Phe Ser Asn Phe Ala Val Ala Ser Ser Phe Leu Gly Val Thr
 290 295 300
 Leu Gly Leu Phe Asp Tyr Leu Ala Asp Leu Phe Gly Phe Asp Asp Ser
 305 310 315 320

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Gly | Arg | Phe | Lys | Thr | Ala | Leu | Leu | Thr | Phe | Leu | Pro | Pro | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Val | Gly | Gly | Leu | Leu | Trp | Pro | Asn | Gly | Phe | Leu | Tyr | Ala | Ile | Gly | Tyr |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Gly | Leu | Ala | Ala | Thr | Ile | Trp | Ala | Ala | Ile | Val | Pro | Ala | Leu | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Arg | Lys | Ser | Arg | Lys | Arg | Phe | Gly | Ser | Pro | Lys | Phe | Arg | Val | Trp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Gly | Xaa | Pro | Met | Ile | Ala | Leu | Ile | Leu | Val | Phe | Gly | Ile | Gly | Asn |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Val | Val | His | Val | Leu | Ser | Ser | Phe | Asn | Leu | Leu | Pro | Val | Tyr | Gln |
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<210> 7642

<211> 169

<212> PRT

<213> Enterobacter cloacae

<400> 7642

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| Thr | Met | Leu | Ile | Arg | Val | Glu | Ile | Gly | Ile | Asp | Ala | Pro | Gly | Ile | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Leu | Arg | Arg | Ser | Phe | Ala | Gly | Asp | Ala | Glu | Ala | Gln | Leu | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Asp | Leu | Arg | Glu | Asp | Gly | Leu | Ile | Thr | Leu | Gly | Leu | Val | Ala | Thr |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Asp | Asp | Glu | Gly | Gln | Val | Val | Gly | Tyr | Val | Ala | Phe | Ser | Pro | Val | Ile |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Gln | Gly | Glu | Glu | Leu | Gln | Trp | Val | Gly | Met | Ala | Pro | Leu | Ala | Val |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Asp | Glu | Asn | Tyr | Arg | Gly | Gln | Gly | Leu | Ala | Arg | Gln | Leu | Val | Tyr | Glu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Gly | Leu | Asp | Ser | Leu | Asn | Glu | Phe | Gly | Tyr | Ala | Ala | Val | Val | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Asp | Pro | Ala | Phe | Tyr | Glu | Arg | Leu | Gly | Phe | Glu | Pro | Ala | Ser | Arg |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Tyr | Asp | Leu | Arg | Cys | His | Trp | Pro | Gly | Thr | Glu | Thr | Ser | Phe | Gln | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Pro | Leu | Ala | Asp | Asp | Ala | Leu | Asp | Gly | Val | Thr | Gly | Leu | Val | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Tyr | His | Asp | His | Phe | Asn | Arg | Phe | | | | | | | | |
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<210> 7643

<211> 149

<212> PRT

<213> Enterobacter cloacae

<400> 7643

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| Glu | Arg | Ala | Lys | Met | Glu | Thr | Leu | Ala | Ala | Ile | Asn | Arg | Trp | Leu | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Gln | His | Val | Val | Thr | Trp | Cys | Val | Cys | Lys | Asp | Glu | Glu | Met | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Cys | Ala | Asn | Ala | Phe | Tyr | Tyr | Tyr | Asp | Pro | Glu | Arg | Val | Ala | Phe | Tyr |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | Met | Ser | Glu | Asp | Lys | Thr | Arg | His | Ala | Gln | Met | Thr | Gly | Gln | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Lys | Val | Ala | Gly | Thr | Val | Asn | Gly | Gln | Pro | Lys | Thr | Val | Ala | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Ile | Arg | Gly | Val | Gln | Phe | Lys | Gly | Glu | Ile | Arg | Arg | Leu | Glu | Gly | Glu |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Glu | Ser | Asp | Ala | Gln | Arg | Lys | Arg | Tyr | Thr | Arg | Arg | Phe | Pro | Val | Ala | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Ala | Ala | Leu | Lys | Ala | Pro | Val | Trp | Glu | Ile | Arg | Leu | Asp | Glu | Leu | Lys | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Phe | Thr | Asp | Asn | Thr | Leu | Gly | Phe | Gly | Lys | Lys | Leu | His | Trp | Leu | Arg | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
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<210> 7644

<211> 246

<212> PRT

<213> Enterobacter cloacae

<400> 7644

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| His | Leu | Pro | Gly | Asn | Gly | Met | Thr | Gly | Gln | Ser | Ser | Ser | Gln | Ala | Ala | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Thr | Pro | Val | Gln | Trp | Trp | Lys | Pro | Ala | Leu | Phe | Phe | Leu | Val | Val | Ile | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Ile | Gly | Leu | Trp | Tyr | Val | Lys | Trp | Gln | Pro | Tyr | Tyr | Gly | Lys | Ala | Phe | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Thr | Ala | Ala | Asp | Thr | His | Ser | Ile | Gly | Lys | Ser | Ile | Leu | Ala | Gln | Ala | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Asp | Ser | Ser | Pro | Leu | Arg | Ala | Ala | Trp | Asp | Tyr | Ala | Met | Val | Tyr | Phe | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Leu | Ala | Val | Trp | Lys | Ala | Ala | Val | Leu | Gly | Val | Leu | Leu | Gly | Ser | Leu | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | |
| Ile | Gln | Val | Leu | Ile | Pro | Arg | Asn | Trp | Leu | Val | Lys | Thr | Leu | Gly | Gln | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Pro | Arg | Leu | Gln | Gly | Thr | Leu | Leu | Gly | Thr | Ile | Phe | Ser | Leu | Pro | Gly | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Met | Met | Cys | Ser | Cys | Cys | Ala | Ala | Pro | Val | Ala | Ala | Gly | Met | Arg | Arg | | |
| | 130 | | | | | 135 | | | | | | 140 | | | | | |
| Gln | Arg | Val | Ser | Met | Gly | Gly | Ala | Leu | Ala | Phe | Trp | Met | Gly | Asn | Pro | | |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | | | |
| Leu | Leu | Asn | Pro | Ala | Thr | Leu | Val | Phe | Met | Gly | Phe | Val | Leu | Gly | Trp | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| His | Phe | Ala | Phe | Ile | Arg | Leu | Ala | Ala | Gly | Leu | Leu | Thr | Val | Val | Leu | | |
| | | | 180 | | | | 185 | | | | | | 190 | | | | |
| Val | Ala | Thr | Leu | Val | Gln | His | Leu | Val | Lys | Asp | Asn | Glu | Ala | Gly | Ser | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Ala | Ser | Val | Glu | Leu | Asp | Val | Ser | Glu | Pro | Gln | Gly | Ser | Phe | Phe | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Arg | Trp | Gly | Lys | Ala | Leu | Trp | Gln | Leu | Phe | Leu | Glu | His | His | Ser | Gly | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
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<211> 121

<212> PRT

<213> Enterobacter cloacae

<400> 7645

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| Trp | Arg | Pro | Val | Phe | Pro | Phe | Ser | Leu | Ser | Leu | Met | Leu | Trp | Cys | Val | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| His | Leu | Asn | Ile | Leu | Asn | Leu | Phe | Thr | Val | Cys | Trp | Phe | Leu | Tyr | Leu | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Val | Arg | Thr | Ala | Asp | Asn | Ala | Leu | Tyr | Thr | Gly | Ile | Thr | Thr | Asp | Val | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Arg | Phe | Leu | Gln | His | Gln | Thr | Gly | Lys | Gly | Ala | Lys | Ala | Leu |
| 50 | | | | | 55 | | | | | 60 | | | | | |
| Arg | Gly | Lys | Gly | Glu | Leu | Gln | Leu | Ala | Phe | Ser | Ala | Ala | Val | Gly | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Arg | Ser | Leu | Ala | Leu | Arg | Leu | Glu | Tyr | Arg | Ile | Lys | Gln | Leu | Thr | Lys |
| | | 85 | | | | | | 90 | | | | | | 95 | |
| Arg | Gln | Lys | Glu | Arg | Leu | Val | Asn | Gly | Asp | Gly | Ser | Phe | Glu | Ala | Leu |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Leu | Glu | Ser | Leu | Leu | Lys | Asn | Asp | | | | | | | | |
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<210> 7646

<211> 346

<212> PRT

<213> Enterobacter cloacae

<400> 7646

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| Ala | Arg | Trp | Gln | Arg | Cys | Gly | Val | Arg | Pro | Ser | Thr | Ala | Ala | Trp | Arg |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Thr | Arg | Lys | Thr | Thr | Leu | Arg | Arg | Arg | His | Gly | Trp | Arg | Arg | Ser | Ala |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Arg | Cys | Pro | Lys | Ala | Pro | Lys | Pro | Arg | Ser | Ala | Arg | Ile | Thr | Val | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Ser | Glu | Ile | Ile | Met | Lys | Tyr | Ser | Leu | Gly | Pro | Val | Leu | Tyr | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Pro | Lys | Glu | Thr | Leu | Glu | Asp | Phe | Tyr | Gln | Gln | Ala | Ala | Asn | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Ser | Ala | Asp | Val | Ile | Tyr | Leu | Gly | Glu | Ala | Val | Cys | Ser | Lys | Arg | Arg |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ala | Thr | Lys | Val | Gly | Asp | Trp | Leu | Asp | Met | Ala | Lys | Ser | Leu | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Ser | Gly | Lys | Gln | Val | Val | Leu | Ser | Thr | Leu | Ala | Leu | Val | Gln | Ala | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Glu | Leu | Gly | Glu | Leu | Lys | Arg | Tyr | Val | Glu | Asn | Gly | Glu | Phe | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Glu | Ala | Ser | Asp | Leu | Gly | Val | Val | Asn | Met | Cys | Ala | Glu | Arg | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Pro | Phe | Val | Ala | Gly | His | Ala | Leu | Asn | Cys | Tyr | Asn | Ala | Val | Thr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Arg | Leu | Leu | Leu | Lys | Gln | Gly | Met | Thr | Arg | Trp | Cys | Met | Pro | Val |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Leu | Ser | Arg | Asp | Trp | Leu | Ala | Asn | Leu | Leu | Thr | Gln | Cys | Glu | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Gly | Ile | Arg | Asn | Lys | Phe | Glu | Val | Glu | Val | Leu | Ser | Tyr | Gly | His |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Pro | Leu | Ala | Tyr | Ser | Ala | Arg | Cys | Phe | Thr | Ala | Arg | Ser | Glu | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Pro | Lys | Asp | Glu | Cys | Glu | Thr | Cys | Cys | Ile | Lys | Tyr | Pro | Asn | Gly |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Arg | Ser | Met | Leu | Ser | Gln | Glu | Asn | Gln | Gln | Val | Phe | Val | Leu | Asn | Gly |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Ile | Gln | Thr | Met | Ser | Gly | Tyr | Val | Tyr | Asn | Leu | Gly | Asn | Glu | Leu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Met | His | Gly | Leu | Val | Asp | Met | Val | Arg | Leu | Ser | Pro | Leu | Asp | Thr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gly | Val | Phe | Ala | Met | Leu | Asp | Ala | Phe | Arg | Ala | Asn | Glu | Asn | Gly | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Pro | Leu | Pro | Leu | Thr | Ala | Asn | Ser | Asp | Cys | Asn | Gly | Tyr | Trp | Arg |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Arg | Leu | Ala | Gly | Leu | Glu | Leu | Gln | Ala | | | | | | | |
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 <211> 338
 <212> PRT
 <213> Enterobacter cloacae

<400> 7647

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 20 25 30
 Asp Leu Ala Gln Leu Ala Glu Lys Arg Gly Tyr His Arg Tyr Trp Leu
 35 40 45
 Ala Glu His His Asn Met Val Gly Ile Ala Ser Ala Ala Thr Ser Val
 50 55 60
 Leu Ile Gly Tyr Leu Ala Ala Asn Thr Thr Thr Leu His Leu Gly Ser
 65 70 75 80
 Gly Gly Val Met Leu Pro Asn His Ala Pro Leu Val Ile Ala Glu Gln
 85 90 95
 Phe Gly Thr Leu Asn Thr Leu Tyr Pro Gly Arg Ile Asp Leu Gly Leu
 100 105 110
 Gly Arg Ala Pro Gly Ser Asp Gln Pro Thr Met Arg Ala Leu Arg Arg
 115 120 125
 His Met Ser Gly Asp Ile Asp Asn Phe Pro Arg Asp Val Ala Glu Leu
 130 135 140
 Val Gly Trp Phe Asp Ala Arg Asp Pro Asn Pro His Val Arg Pro Val
 145 150 155 160
 Pro Gly Tyr Gly Glu Lys Ile Pro Val Trp Leu Leu Gly Ser Ser Leu
 165 170 175
 Tyr Ser Ala Gln Leu Ala Ala Gln Leu Gly Leu Pro Phe Ala Phe Ala
 180 185 190
 Ser His Phe Ala Pro Asp Met Leu His Gln Ala Leu His Leu Tyr Arg
 195 200 205
 Thr His Phe Lys Pro Ser Glu Arg Leu Glu Lys Pro Tyr Ala Met Val
 210 215 220
 Cys Ile Asn Ile Ile Ala Ala Asp Ser Asn Arg Asp Ala Glu Phe Leu
 225 230 235 240
 Phe Thr Ser Met Gln Gln Ala Phe Val Lys Leu Arg Arg Gly Glu Thr
 245 250 255
 Gly Gln Leu Pro Pro Val Glu Asn Met His Gln Leu Trp Ser Ala
 260 265 270
 Ser Glu Gln Tyr Gly Val Gln Gln Ala Leu Ser Met Ser Leu Val Gly
 275 280 285
 Asp Lys Ala Lys Val Arg His Gly Leu Glu Ser Val Leu Arg Glu Thr
 290 295 300
 Gln Ala Asp Glu Ile Met Val Asn Gly Gln Ile Phe Asp His Gln Ala
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 Arg Leu His Ser Phe Asp Leu Ala Met Gln Val Lys Glu Glu Leu Val
 325 330 335
 Gly

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 <212> PRT
 <213> Enterobacter cloacae

<400> 7648

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 Ser Lys Glu Thr Ala Leu Arg Leu Ala Asp Val Gln Leu Asn Gly Ser


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| Ala | Ala | Gly | Pro | Arg | Lys | Gly | Leu | Pro | Arg | Ser | Gln | Cys | Gly | Ala | Phe |
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| His | Asn | Thr | Thr | Gly | Gly | Leu | Thr | Tyr | Phe | Asn | Thr | Thr | Pro | Leu | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Ala | Val | Thr | Gly | Thr | Met | Leu | Val | Ala | Ala | Met | Lys | Glu | Asp | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Ile | Trp | Gly | Asp | Gly | Ser | Thr | Tyr | Lys | Gly | Asn | Asp | Ile | Glu |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Arg | Phe | Tyr | Arg | Tyr | Gly | Leu | Leu | Thr | Asn | Ala | Glu | Leu | Gln | Ile | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Pro | Trp | Leu | Asp | Thr | Asp | Phe | Ile | Asp | Glu | Leu | Gly | Gly | Arg | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Met | Ser | Glu | Phe | Met | Ile | Ala | Cys | Gly | Phe | Asp | Tyr | Lys | Met | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Glu | Lys | Ala | Tyr | Ser | Thr | Asp | Ser | Asn | Met | Leu | Gly | Ala | Thr | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Ala | Lys | Asp | Leu | Glu | Phe | Leu | Asn | Ser | Ser | Val | Lys | Ile | Val | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Ile | Met | Gly | Val | Lys | Phe | Trp | Asp | Glu | Asn | Val | Lys | Ile | Pro | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Glu | Val | Thr | Val | Arg | Phe | Glu | Arg | Gly | His | Pro | Val | Ala | Leu | Asn |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gly | Lys | Thr | Phe | Ser | Asp | Asp | Val | Glu | Leu | Met | Leu | Glu | Ala | Asn | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Gly | Gly | Arg | His | Gly | Leu | Gly | Met | Ser | Asp | Gln | Ile | Glu | Asn | Arg |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ile | Ile | Glu | Ala | Lys | Ser | Arg | Gly | Ile | Tyr | Glu | Ala | Pro | Gly | Met | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Leu | His | Ile | Ala | Tyr | Glu | Arg | Leu | Leu | Thr | Gly | Ile | His | Asn | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Thr | Ile | Glu | Gln | Tyr | His | Ala | His | Asp | Arg | Gln | Leu | Gly | Lys | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Tyr | Gln | Gly | Arg | Trp | Phe | Asp | Pro | Gln | Ala | Leu | Met | Leu | Arg | Asp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Met | Gln | Arg | Trp | Val | Ala | Ser | Ala | Ile | Thr | Gly | Glu | Val | Thr | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Leu | Arg | Arg | Gly | Asn | Glu | Tyr | Ser | Ile | Leu | Asn | Thr | Val | Ser | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Leu | Thr | Tyr | Lys | Ala | Glu | Arg | Leu | Thr | Met | Glu | Lys | Gly | Glu | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Val | Phe | Ser | Pro | Asp | Asp | Arg | Ile | Gly | Gln | Leu | Thr | Met | Arg | Asn | Leu |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asp | Ile | Thr | Asp | Thr | Arg | Glu | Lys | Leu | Phe | Asn | Tyr | Val | Glu | Asn | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Leu | Ser | Ala | Asn | Ser | Gly | Asn | Gly | Leu | Pro | Gln | Val | Glu | Asn | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7651

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| Ile | Met | Glu | Leu | Leu | Cys | Pro | Ala | Gly | Asn | Leu | Pro | Ala | Leu | Lys | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ile | Glu | Asn | Gly | Ala | Asp | Ala | Val | Tyr | Ile | Gly | Leu | Lys | Asp | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Asn | Ala | Arg | His | Phe | Ala | Gly | Leu | Asn | Phe | Thr | Glu | Lys | Lys | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Glu | Ala | Val | Asn | Phe | Val | His | Gln | His | Arg | Arg | Lys | Leu | His | Ile |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Ile | Asn | Thr | Phe | Ala | His | Pro | Asp | Gly | Tyr | Ala | Arg | Trp | Gln | Arg |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Ala | Val | Asp | Met | Ala | Ala | Gln | Leu | Gly | Ala | Asp | Ala | Leu | Ile | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Asp Leu Ala Met Leu Glu Tyr Ala Ala Glu Arg Tyr Pro His Ile Glu
 100 105 110
 Arg His Val Ser Val Gln Ala Ser Ala Thr Asn Glu Glu Ala Val Arg
 115 120 125
 Phe Tyr His Arg His Phe Asp Val Ala Arg Val Val Leu Pro Arg Val
 130 135 140
 Leu Ser Ile His Gln Val Lys Gln Leu Ala Arg Val Thr Pro Val Pro
 145 150 155 160
 Leu Glu Val Phe Ala Phe Gly Ser Leu Cys Ile Met Ala Glu Gly Arg
 165 170 175
 Cys Tyr Leu Ser Ser Tyr Leu Thr Gly Glu Ser Pro Asn Thr Val Gly
 180 185 190
 Ala Cys Ser Pro Ala Arg Phe Val Arg Trp Gln Gln Thr Pro Gln Gly
 195 200 205
 Leu Glu Ser Arg Leu Asn Asp Val Leu Ile Asp Arg Tyr Gln Asp Gly
 210 215 220
 Glu Asn Ala Gly Tyr Pro Thr Leu Cys Lys Gly Arg Tyr Leu Val Asp
 225 230 235 240
 Gly Glu Arg Tyr His Ala Leu Glu Glu Pro Thr Ser Leu Asn Thr Leu
 245 250 255
 Glu Leu Leu Pro Glu Leu Leu Ala Ala Asn Ile Ala Ser Val Lys Ile
 260 265 270
 Glu Gly Arg Gln Arg Ser Pro Ala Tyr Val Ser Gln Val Ala Lys Val
 275 280 285
 Trp Arg Gln Ala Ile Asp Arg Cys Met Ala Asp Pro Gln Asn Tyr Ala
 290 295 300
 Pro Gln Ala Ala Trp Met Glu Thr Leu Gly Ala Met Ser Glu Gly Thr
 305 310 315 320
 Gln Thr Thr Leu Gly Ala Tyr His Arg Lys Trp Gln
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<211> 107

<212> PRT

<213> Enterobacter cloacae

<400> 7652

Ser Val Asn Gln Ala Gly Phe Tyr Tyr Met Thr Thr Ile Leu Lys His
 1 5 10 15
 Leu Pro Val Gly Gln Arg Ile Gly Ile Ala Phe Ser Gly Gly Leu Asp
 20 25 30
 Thr Ser Ala Ala Leu Leu Trp Met Arg Gln Lys Gly Ala Val Pro Tyr
 35 40 45
 Ala Tyr Thr Ala Asn Leu Gly Gln Pro Asp Glu Glu Asp Tyr Asp Ala
 50 55 60
 Ile Pro Arg Arg Ala Met Glu Tyr Gly Ala Glu Asn Ala Arg Leu Ile
 65 70 75 80
 Asp Cys Arg Lys Gln Leu Val Pro Gly Arg Asp Cys Arg Asp Pro Ser
 85 90 95
 Ala Val Leu Ser Ile Thr Leu Pro Ala Ala
 100 105

<210> 7653

<211> 158

<212> PRT

<213> Enterobacter cloacae

<400> 7653

Thr Val Ile Ala Met Ala Ala Arg Lys Ser Ile Ile Phe Ile Cys Ile
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 Cys Trp Val Asp Val His Trp Asp Arg Cys Trp His Ile Lys Val Phe


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<211> 90
<212> PRT
<213> Enterobacter cloacae
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<210> 7655
<211> 423
<212> PRT
<213> Enterobacter cloacae
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| <400> | 7655 | | | | | | | | | | | | | | | |
| Thr | Asp | Ala | Asp | Gly | Ser | Gly | Val | Met | Ala | Ser | Pro | Leu | Ser | Leu | Leu | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Ile | Gly | Leu | Arg | Phe | Ser | Arg | Gly | Arg | Arg | Arg | Ser | Gly | Met | Val | Ser | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Ile | Ser | Val | Ile | Ser | Thr | Ile | Gly | Ile | Ala | Leu | Gly | Val | Ala | Val | |
| | | 35 | | | | 40 | | | | | | 45 | | | | |
| Leu | Ile | Val | Gly | Leu | Ser | Ala | Met | Asn | Gly | Phe | Glu | Arg | Glu | Leu | Asn | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Asn | Arg | Ile | Leu | Ala | Val | Val | Pro | His | Gly | Glu | Ile | Glu | Pro | Val | Asn | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Gln | Pro | Trp | Ser | Asn | Trp | Gln | Asp | Ser | Leu | Asn | Lys | Val | Glu | Lys | Val | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Pro | Gly | Ile | Ala | Ala | Ala | Ala | Pro | Tyr | Ile | Asn | Phe | Thr | Gly | Leu | Val | |
| | | | 100 | | | | 105 | | | | | | 110 | | | |
| Glu | Ser | Gly | Val | Asn | Leu | Arg | Ala | Ile | Gln | Val | Lys | Gly | Val | Asn | Pro | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Arg | Gln | Glu | Glu | Arg | Leu | Ser | Ala | Leu | Pro | Arg | Tyr | Val | Gln | Asn | Gly | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |

Ala Trp Ala Asn Phe Lys Ala Gly Glu Gln Gln Ile Ile Met Gly Lys
 145 150 155 160
 Gly Val Ala Asp Ala Leu Lys Val Lys Gln Gly Asp Trp Val Ser Ile
 165 170 175
 Met Ile Pro Asn Ala Ser Ala Asp His Lys Leu Gln Gln Pro Lys Arg
 180 185 190
 Val Arg Leu His Val Thr Gly Ile Leu Gln Leu Ser Gly Gln Leu Asp
 195 200 205
 His Ser Phe Ala Met Val Pro Leu Glu Asp Ala Arg Gln Tyr Leu Asp
 210 215 220
 Met Ser Asp Ser Val Thr Gly Ile Ala Ile Lys Val Asn Asp Val Phe
 225 230 235 240
 Asn Ala Asn Lys Leu Val Arg Asp Ala Gly Ser Val Thr Asn Asn Tyr
 245 250 255
 Val Tyr Ile Lys Ser Trp Ile Gly Thr Tyr Gly Tyr Met Tyr Arg Asp
 260 265 270
 Ile Gln Met Ile Arg Ala Ile Met Tyr Leu Ala Met Val Leu Val Ile
 275 280 285
 Gly Val Ala Cys Phe Asn Ile Val Ser Thr Leu Val Met Ala Val Lys
 290 295 300
 Asp Lys Ser Gly Asp Ile Ala Val Leu Arg Thr Leu Gly Ala Lys Asp
 305 310 315 320
 Gly Leu Ile Arg Ala Ile Phe Val Trp Tyr Gly Leu Leu Ala Gly Leu
 325 330 335
 Phe Gly Ser Leu Cys Gly Val Ala Ile Gly Val Val Val Ser Leu Gln
 340 345 350
 Leu Thr Pro Ile Ile Asn Gly Ile Glu Ala Leu Ile Gly His Gln Phe
 355 360 365
 Leu Ser Gly Asp Ile Tyr Phe Ile Asp Phe Leu Pro Ser Glu Leu His
 370 375 380
 Trp Leu Asp Val Ile Tyr Val Leu Val Thr Ala Leu Leu Leu Ser Leu
 385 390 395 400
 Leu Ala Ser Trp Tyr Pro Ala Arg Arg Ala Ser Arg Ile Asp Pro Ala
 405 410 415
 Arg Val Leu Ser Gly Gln
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<210> 7656

<211> 322

<212> PRT

<213> Enterobacter cloacae

<400> 7656

Phe Arg His Gly Leu Ala Val Phe Trp Pro Leu Asn Gln Thr Glu Glu
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 Cys Ile Met Tyr Tyr Gly Phe Asp Ile Gly Gly Thr Lys Ile Ala Leu
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 Gly Val Phe Asp Lys Asp Leu Lys Leu Gln Trp Glu Thr Arg Val Pro
 35 40 45
 Thr Pro Arg Glu Ser Tyr Asp Glu Phe Leu Thr Ala Ile Ala Ala Leu
 50 55 60
 Val Ala Gln Ala Asp Glu Arg Phe Gly Val Lys Gly Ser Val Gly Ile
 65 70 75 80
 Gly Ile Pro Gly Met Pro Glu Thr Asp Asp Gly Thr Leu Tyr Ala Ala
 85 90 95
 Asn Val Pro Ala Ala Ser Gly Lys Pro Leu Arg Ala Asp Leu Ser Ala
 100 105 110
 Leu Leu Glu Arg Asp Val Arg Leu Asp Asn Asp Ala Asn Cys Phe Ala
 115 120 125
 Leu Ser Glu Ala Trp Asp Asp Glu Phe Arg Arg Phe Pro Leu Val Met
 130 135 140

Gly Leu Ile Leu Gly Thr Gly Val Gly Gly Gly Ile Val Ile Asn Gly
 145 150 155 160
 Lys Pro Ile Thr Gly Arg Ser Tyr Ile Thr Gly Glu Phe Gly His Ile
 165 170 175
 Arg Leu Pro Val Asp Ala Leu Glu Val Val Gly Arg Asp Phe Pro Leu
 180 185 190
 Thr Arg Cys Gly Cys Gly Gln His Gly Cys Ile Glu Asn Tyr Leu Ser
 195 200 205
 Gly Arg Gly Phe Ala Trp Leu Tyr Glu His Phe Tyr His Gln Lys Leu
 210 215 220
 Glu Ala Pro Gln Ile Ile Thr Leu Trp Glu Gln Gly Asp Ala Gln Ala
 225 230 235 240
 Arg Glu His Val Glu Arg Tyr Leu Asp Leu Leu Ala Val Cys Leu Gly
 245 250 255
 Asn Ile Leu Thr Ile Val Asp Pro Asp Leu Leu Val Ile Gly Gly Gly
 260 265 270
 Leu Ser Asn Phe Thr Ala Ile Thr Glu Gln Leu Ser Gly Arg Leu Thr
 275 280 285
 Arg His Leu Leu Pro Val Ala Arg Val Pro Arg Ile Glu Arg Ala Arg
 290 295 300
 His Gly Asp Ala Gly Gly Met Arg Gly Ala Ala Phe Leu His Leu Thr
 305 310 315 320
 Asp

<210> 7657

<211> 217

<212> PRT

<213> Enterobacter cloacae

<400> 7657

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 Leu Phe Leu Ala Gly Cys Val Thr Arg Thr Glu Glu Pro Ala Pro Val
 20 25 30
 Asp Gln Ala Lys Pro Gly Thr Glu Gln Pro Thr Thr Pro Ala Gln Pro
 35 40 45
 Val Pro Thr Val Pro Ser Val Pro Thr Ile Pro Ala Gln Pro Gly Pro
 50 55 60
 Ile Glu His Pro Asp Asp Thr Ala Gln Pro Ala Pro Arg Val Arg His
 65 70 75 80
 Tyr Asp Trp Asn Gly Ala Met Gln Pro Met Val Gly Lys Met Leu Gln
 85 90 95
 Ala Gln Gly Val Thr Pro Gly Ser Val Leu Leu Val Asp Ser Val Asn
 100 105 110
 Asn Arg Thr Asn Gly Ser Leu Asn Ala Gly Glu Ala Thr Glu Thr Leu
 115 120 125
 Arg Asn Ala Leu Ala Asn Asn Gly Lys Phe Thr Leu Val Ser Ala Gln
 130 135 140
 Gln Leu Ala Val Ala Lys Gln Gln Leu Gly Leu Ser Pro Gln Asp Ser
 145 150 155 160
 Leu Gly Ser Arg Ser Lys Ala Ile Gly Ile Ala Arg Asn Val Gly Ala
 165 170 175
 Gln Tyr Val Leu Tyr Ser Asn Ala Thr Gly Asn Val Asn Thr Pro Ser
 180 185 190
 Leu Gln Met Gln Leu Met Leu Val Gln Thr Gly Glu Ile Ile Trp Ser
 195 200 205
 Gly Lys Gly Ala Val Thr Gln Gln
 210 215

<210> 7658

<211> 356
 <212> PRT
 <213> Enterobacter cloacae

<400> 7658

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Ala | Ser | Val | Thr | Asn | Glu | Arg | Ile | Arg | Glu | Val | Gly | Val | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Val | Met | Leu | Asp | Val | Glu | Gly | Phe | Glu | Leu | Asp | Ala | Glu | Glu | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ile | Leu | Ala | His | Pro | Leu | Val | Gly | Gly | Leu | Ile | Leu | Phe | Thr | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Tyr | His | Asp | Pro | Glu | Gln | Leu | Arg | Glu | Leu | Val | Arg | Gln | Ile | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ala | Ser | Arg | Asn | His | Leu | Val | Val | Ala | Val | Asp | Gln | Glu | Gly | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Val | Gln | Arg | Phe | Arg | Glu | Gly | Phe | Thr | Arg | Leu | Pro | Ala | Ala | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Phe | Ala | Ala | Leu | Leu | Gly | Ile | Glu | Glu | Gly | Gly | Gln | Leu | Ala | Gln |
| | | | 100 | | | | | | 105 | | | | 110 | | |
| Asp | Ala | Gly | Trp | Leu | Met | Ala | Ser | Glu | Met | Ile | Ala | Met | Asp | Ile | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Ser | Phe | Ala | Pro | Val | Leu | Asp | Val | Gly | His | Ile | Ser | Ala | Ala | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Glu | Arg | Ser | Tyr | His | Asp | Asp | Pro | Arg | Ile | Ala | Leu | Ala | Met | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Arg | Phe | Ile | Asp | Gly | Met | His | Ala | Ala | Gly | Met | Lys | Thr | Thr | Gly |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Lys | His | Phe | Pro | Gly | His | Gly | Ala | Val | Thr | Ala | Asp | Ser | His | Lys | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Pro | Arg | Asp | Pro | Arg | Pro | Glu | Ala | Asp | Ile | Arg | Ala | Lys | Asp | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Val | Phe | Arg | Ser | Leu | Ile | Ala | Asp | Asn | Lys | Leu | Asp | Ala | Ile | Met |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Ala | His | Val | Ile | Tyr | Ser | Glu | Val | Asp | Pro | Arg | Pro | Ala | Ser | Gly |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Ser | Pro | His | Trp | Leu | Lys | Thr | Val | Leu | Arg | Gln | Glu | Leu | Gly | Phe | Asn |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Val | Ile | Phe | Ser | Asp | Asp | Leu | Ser | Met | Glu | Gly | Ala | Ala | Ile | Met |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Ser | Tyr | Ala | Glu | Arg | Gly | Gln | Ala | Ser | Leu | Asp | Ala | Gly | Cys | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Met | Ile | Leu | Val | Cys | Asn | Asn | Arg | Lys | Gly | Ala | Val | Ser | Val | Leu | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Leu | Ser | Pro | Ile | Asn | Ala | Glu | Arg | Val | Thr | Gln | Leu | Tyr | His | Lys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Ser | Phe | Ser | Arg | Gln | Glu | Leu | Met | Asp | Ser | Ala | Arg | Trp | Lys | Thr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Val | Asn | Ala | Arg | Leu | Glu | Ala | Leu | Asn | Glu | Arg | Trp | Gln | Ala | His | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Ala | Leu | | | | | | | | | | | | | |
| | | 355 | | | | | | | | | | | | | |

<210> 7659
 <211> 440
 <212> PRT
 <213> Enterobacter cloacae

<400> 7659

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Glu | Gly | Val | Thr | Leu | Thr | Thr | Pro | Leu | Lys | Lys | Ile | Val | Ile | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Gly | Gly | Ala | Gly | Gly | Leu | Glu | Leu | Ala | Thr | Gln | Leu | Gly | Lys | Lys |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | | 25 | | | | 30 | | | |
| Leu | Gly | Arg | Gly | Lys | Lys | Ala | Lys | Ile | Thr | Leu | Val | Asp | Arg | Asn | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | His | Leu | Trp | Lys | Pro | Leu | Leu | His | Glu | Val | Ala | Thr | Gly | Ser | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Glu | Gly | Val | Asp | Ala | Leu | Ser | Tyr | Leu | Ala | His | Ala | Arg | Asn | His |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| His | Phe | Gln | Phe | Gln | Leu | Gly | Ser | Val | Val | Asp | Ile | Asn | Arg | Glu | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Thr | Ile | Thr | Leu | Ala | Glu | Leu | Arg | Asp | Asp | Lys | Gly | Glu | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Pro | Glu | Arg | Lys | Leu | Ala | Tyr | Asp | Thr | Leu | Val | Met | Ala | Leu | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Thr | Ser | Asn | Asp | Phe | Asn | Thr | Pro | Gly | Val | Lys | Glu | His | Cys | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Leu | Asp | Asn | Pro | His | Gln | Ala | Arg | Arg | Phe | His | Gln | Glu | Met | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Leu | Phe | Leu | Lys | Tyr | Thr | Asn | Asn | Met | Gly | Ala | Asn | Gly | Lys | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asn | Ile | Ala | Ile | Val | Gly | Gly | Gly | Ala | Thr | Gly | Val | Glu | Leu | Ser | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Leu | His | Asn | Ala | Val | Lys | Gln | Leu | His | Ser | Tyr | Gly | Tyr | Lys | Gly |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Thr | Asn | Glu | Ala | Leu | Asn | Val | Thr | Leu | Val | Glu | Ala | Gly | Glu | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Leu | Pro | Ala | Leu | Pro | Pro | Arg | Ile | Ser | Gly | Ala | Ala | His | Asn | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Thr | Lys | Leu | Gly | Val | Arg | Val | Leu | Thr | Gln | Thr | Met | Val | Thr | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Asp | Glu | Gly | Gly | Leu | His | Thr | Lys | Asp | Gly | Glu | Tyr | Ile | Gln | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Leu | Met | Val | Trp | Ala | Ala | Gly | Ile | Lys | Ala | Pro | Asp | Phe | Met | Lys |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Asp | Ile | Gly | Gly | Leu | Glu | Thr | Asn | Arg | Ile | Asn | Gln | Leu | Val | Thr | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Thr | Leu | Gln | Thr | Thr | Arg | Asp | Pro | Asp | Ile | Phe | Ala | Ile | Gly | Asp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Cys | Ala | Ser | Cys | Ala | Arg | Pro | Glu | Gly | Gly | Phe | Val | Pro | Pro | Arg | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gln | Ala | Ala | His | Gln | Met | Ala | Ser | Leu | Val | Leu | His | Asn | Ile | Leu | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gln | Ile | Lys | Gly | Lys | Pro | Met | Lys | Ala | Tyr | Val | Tyr | Lys | Asp | His | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Leu | Val | Ser | Leu | Ser | Asn | Phe | Ser | Thr | Val | Gly | Ser | Leu | Met | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asn | Leu | Met | Arg | Gly | Ser | Met | Met | Val | Glu | Gly | Arg | Ile | Ala | Arg | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Tyr | Ile | Ser | Leu | Tyr | Arg | Met | His | Gln | Ile | Ala | Leu | His | Gly | Tyr |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Phe | Lys | Thr | Gly | Leu | Met | Met | Leu | Val | Gly | Arg | Ile | Asn | Arg | Val | Ile |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Arg | Pro | Arg | Leu | Lys | Leu | His | | | | | | | | | |
| | | 435 | | | | | | 440 | | | | | | | |

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<211> 648

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222>(355)

<400> 7660

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| Arg | Ile | Arg | Leu | Tyr | Thr | Arg | Gly | Ser | Ala | Ile | Ser | Lys | Gln | Thr | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Met | Tyr | Gln | Pro | Val | Ala | Leu | Phe | Ile | Gly | Leu | Arg | Tyr | Met | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Arg | Ala | Ala | Asp | Arg | Phe | Gly | Arg | Phe | Val | Ser | Trp | Leu | Ser | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Gly | Ile | Thr | Leu | Gly | Val | Met | Ala | Leu | Val | Thr | Val | Leu | Ser | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Asn | Gly | Phe | Glu | Arg | Glu | Leu | Gln | Asn | Asn | Ile | Leu | Gly | Leu | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Gln | Ala | Val | Leu | Ser | Ser | Thr | Gln | Gly | Ser | Val | Asn | Pro | Gln | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Pro | Glu | Ser | Ala | Val | Lys | Leu | Gln | Gly | Val | Thr | Arg | Val | Ala | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Thr | Thr | Gly | Asp | Val | Val | Leu | Gln | Ser | Ala | Arg | Ser | Val | Ala | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Val | Met | Leu | Gly | Ile | Asp | Pro | Ala | Gln | Lys | Asp | Pro | Leu | Thr | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Leu | Val | Asn | Val | Lys | Gln | Thr | Asp | Leu | Glu | Ala | Gly | Lys | Tyr | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Ile | Leu | Gly | Glu | Gln | Leu | Ala | Gly | Gln | Leu | Gly | Val | Asn | Arg | Gly |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Asp | Gln | Leu | Arg | Val | Met | Val | Pro | Ser | Ala | Ser | Gln | Phe | Thr | Pro | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Arg | Leu | Pro | Ser | Gln | Arg | Leu | Phe | Asn | Val | Ile | Gly | Thr | Phe | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Asn | Ser | Glu | Val | Asp | Gly | Tyr | Gln | Met | Leu | Val | Asn | Ile | Gln | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Ser | Arg | Leu | Met | Arg | Tyr | Pro | Ala | Gly | Asn | Ile | Thr | Gly | Trp | Arg |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Leu | Trp | Leu | Asp | Ala | Pro | Leu | Lys | Val | Asp | Thr | Leu | Ser | Gln | Gln | Thr |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Leu | Pro | Glu | Gly | Thr | Lys | Trp | Gln | Asp | Trp | Arg | Asp | Arg | Lys | Gly | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Phe | Gln | Ala | Val | Arg | Met | Glu | Lys | Asn | Met | Met | Gly | Leu | Leu | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Leu | Ile | Val | Ala | Val | Ala | Ala | Phe | Asn | Ile | Ile | Thr | Ser | Leu | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Met | Val | Met | Glu | Lys | Gln | Gly | Glu | Val | Ala | Ile | Leu | Gln | Thr | Gln |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Leu | Thr | Pro | Arg | Gln | Ile | Met | Ala | Val | Phe | Met | Val | His | Gly | Ala |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Ser | Ala | Gly | Ile | Ile | Gly | Ala | Leu | Leu | Gly | Ala | Ala | Leu | Gly | Ala | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Ala | Xaa | Gln | Leu | Asn | Asn | Leu | Met | Pro | Ile | Ile | Arg | Ala | Leu | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asp | Gly | Ala | Ala | Leu | Pro | Val | Ala | Ile | Glu | Pro | Leu | Lys | Trp | Ser | Val |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Arg | Trp | Pro | Arg | Trp | Pro | Met | Arg | Cys | Leu | Leu | Arg | Phe | Ile | Leu |
| 385 | | | | | 390 | | | | 395 | | | | | | 400 |
| Pro | Gly | Gly | Leu | Pro | Pro | Leu | Asn | Pro | Leu | Arg | Leu | Tyr | Val | Met | Asn |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Lys | Ile | Leu | Leu | Gln | Cys | Asp | Asn | Leu | Ser | Lys | Arg | Tyr | Gln | Glu | Gly |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Thr | Val | Gln | Thr | Asp | Val | Leu | His | Asn | Val | Ser | Phe | Ser | Val | Gly | Glu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gly | Glu | Met | Met | Ala | Ile | Val | Gly | Ser | Ser | Gly | Ser | Gly | Lys | Ser | Thr |
| | 450 | | | | | 455 | | | | | 460 | | | | |

Leu Leu His Leu Leu Gly Gly Leu Asp Thr Pro Thr Glu Gly Asp Val
 465 470 475 480
 Ile Phe Ser Gly Gln Pro Leu Ser Lys Met Ser Ser Thr Ala Lys Ala
 485 490 495
 Glu Leu Arg Asn Arg Glu Leu Gly Phe Ile Tyr Gln Phe His His Leu
 500 505 510
 Leu Pro Asp Phe Thr Ala Leu Glu Asn Val Ala Met Pro Leu Leu Ile
 515 520 525
 Gly Lys Lys Lys Pro Ala Glu Ile Asn Ala Arg Ala Ser Asp Met Leu
 530 535 540
 Lys Ala Val Gly Leu Gly His Arg Gly Asn His Arg Pro Ser Glu Leu
 545 550 555 560
 Ser Gly Gly Glu Arg Gln Arg Val Ala Ile Ala Arg Ala Leu Val Asn
 565 570 575
 Asn Pro Arg Leu Val Leu Ala Asp Glu Pro Thr Gly Asn Leu Asp Ala
 580 585 590
 Arg Asn Ala Asp Ser Ile Phe Gln Leu Leu Gly Glu Leu Asn Ala Ala
 595 600 605
 Gln Gly Thr Ala Phe Leu Val Val Thr His Asp Leu Gln Leu Ala Lys
 610 615 620
 Arg Met Gly Arg Gln Leu Glu Met Arg Asp Gly Arg Leu Asn Ala Glu
 625 630 635 640
 Leu Thr Leu Met Gly Ala Glu
 645

<210> 7661

<211> 124

<212> PRT

<213> Enterobacter cloacae

<400> 7661

Lys Glu Lys Val Met Ala Glu Glu Thr Ile Phe Ser Lys Ile Ile Arg
 1 5 10 15
 Arg Glu Ile Pro Ser Asp Ile Val Tyr Gln Asp Glu Leu Val Thr Ala
 20 25 30
 Phe Arg Asp Ile Ser Pro Gln Ala Pro Thr His Ile Leu Ile Ile Pro
 35 40 45
 Asn Ile Leu Ile Pro Thr Val Asn Asp Val Lys Thr Glu His Glu Val
 50 55 60
 Ala Leu Gly Arg Met Leu Thr Val Ala Ala Lys Ile Ala Glu Gln Glu
 65 70 75 80
 Gly Ile Ala Glu Asp Gly Tyr Arg Leu Ile Met Asn Cys Asn Arg His
 85 90 95
 Gly Gly Gln Glu Val Tyr His Ile His Met His Leu Leu Gly Gly Arg
 100 105 110
 Pro Leu Gly Pro Met Leu Ala His Lys Gly Leu
 115 120

<210> 7662

<211> 288

<212> PRT

<213> Enterobacter cloacae

<400> 7662

Cys Trp Phe Arg Pro Ala Lys Leu Ser Gly Gln Val Lys Val Pro Leu
 1 5 10 15
 Arg Asn Asn Lys Arg Thr Arg His Asp Val Leu Thr Arg Tyr Phe Pro
 20 25 30
 Gln Tyr His Val Ile Ala Pro Gln Ala Pro Ala Gly Leu Gly Gly Ala
 35 40 45
 Ser Cys Ile Ile Glu His Gly Asp His Arg Leu Val Leu Arg Gln His

| | | |
|---------------------|-------------------------|-------------------------|
| 50 | 55 | 60 |
| His Asp Ala Ala Ala | Pro Ala Ser His Phe Arg | Arg Gln Phe Arg Ala |
| 65 | 70 | 75 |
| Leu Lys Arg Leu Pro | Ala Asp Leu Ala Pro | Gln Pro His Leu Phe Ile |
| 85 | 90 | 95 |
| Arg Asp Trp Met Ala | Val Ala Phe Ile Ala | Gly Glu Ile Lys Ser Glu |
| 100 | 105 | 110 |
| Leu Pro Asp Thr Pro | Ala Leu Thr Ala Met | Leu Tyr His Leu His Arg |
| 115 | 120 | 125 |
| Gln Pro Arg Leu Gly | Trp Arg Val Thr Leu | Leu Pro Leu Leu Asp His |
| 130 | 135 | 140 |
| Tyr Trp Gln Gln Ala | Ala Pro Gly Arg Arg | Thr Pro Tyr Trp Leu Ala |
| 145 | 150 | 155 |
| Gln Leu Lys Arg Leu | Arg Lys Ala Gly Glu | Pro Gln Ala Leu Arg Leu |
| 165 | 170 | 175 |
| Ala Pro Leu His Met | Asp Val His Ala Gly | Asn Ile Val His Thr Thr |
| 180 | 185 | 190 |
| Ala Gly Glu Lys Leu | Ile Asp Trp Glu Tyr | Ala Gly Asp Gly Asp Val |
| 195 | 200 | 205 |
| Ala Leu Glu Leu Ala | Ala Val Trp Met Pro | Asp Glu Ala Ser Arg Lys |
| 210 | 215 | 220 |
| Gln Leu Ile Thr Ala | Tyr Ala Arg Asn Ala | Asn Ile Asn Ala Leu Thr |
| 225 | 230 | 235 |
| Leu Ala Arg Gln Val | Ala Arg Trp Arg Pro | Trp Val Leu Met Leu Met |
| 245 | 250 | 255 |
| Ala Gly Trp Phe Glu | Met Arg Leu Gln Gln | Thr Gly Asp Lys Gln Phe |
| 260 | 265 | 270 |
| Ile Ala Leu Ala Asn | Asp Ala Trp Arg Gln | Leu Gln Thr Lys Gly |
| 275 | 280 | 285 |

<210> 7663

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7663

| | | |
|---------------------|---------------------|-----------------------------|
| Arg Gly Glu Thr Met | Ile Ile Tyr Leu His | Gly Phe Asp Ser Asn Ser |
| 1 | 5 | 10 |
| Pro Gly Asn His Glu | Lys Val Leu Gln Leu | Gln Phe Ile Asp Pro Asp |
| 20 | 25 | 30 |
| Val Arg Leu Ile Ser | Tyr Ser Thr Arg His | Pro Lys His Asp Met Gln |
| 35 | 40 | 45 |
| His Leu Leu Lys Glu | Val Asp Lys Met Leu | Gln Leu Asn Ile Asp Asp |
| 50 | 55 | 60 |
| Arg Pro Leu Ile Cys | Gly Val Gly Leu Gly | Gly Tyr Trp Ala Glu Arg |
| 65 | 70 | 75 |
| Ile Gly Phe Leu Cys | Asp Ile Arg Gln Val | Ile Phe Asn Pro Asn Leu |
| 85 | 90 | 95 |
| Phe Pro Asn Glu Asn | Met Glu Gly Lys Ile | Asp Arg Pro Glu Glu Tyr |
| 100 | 105 | 110 |
| Ala Asp Ile Ala Thr | Lys Cys Val Ser Asn | Phe Arg Glu Lys Asn Arg |
| 115 | 120 | 125 |
| Asp Arg Cys Leu Val | Ile Leu Ser Arg Asn | Asp Glu Ala Leu Asn Ser |
| 130 | 135 | 140 |
| Ser Arg Ala Ala Glu | Leu Leu His His Tyr | Tyr Tyr Glu Ile Val Trp Asp |
| 145 | 150 | 155 |
| Glu Glu Gln Thr His | Lys Phe Lys Asn Ile | Ser Pro His Leu Gln Arg |
| 165 | 170 | 175 |
| Ile Lys Ala Phe Lys | Thr Leu Gly | |
| 180 | 185 | |

<210> 7664
 <211> 204
 <212> PRT
 <213> Enterobacter cloacae

<400> 7664

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Ser Phe Ile Leu Leu Ala Lys Arg Leu Leu Arg Cys Lys Ile Ala Thr
1      5      10      15
Asn Cys Asn Lys Gly Gly Ser Pro Val Asn Lys Ser Met Leu Ala Gly
20      25      30
Ile Gly Ile Gly Val Ala Ala Ala Leu Gly Val Ala Ala Val Ala Ser
35      40      45
Leu Asn Val Leu Asp Arg Gly Pro Gln Tyr Ala Gln Val Val Ser Ala
50      55      60
Thr Pro Ile Lys Glu Thr Val Lys Thr Pro Arg Gln Glu Cys Arg Asn
65      70      75      80
Val Ser Val Thr His Arg Arg Pro Val Gln Asp Glu Asn Arg Ile Ala
85      90      95
Gly Ser Val Leu Gly Ala Val Ala Gly Gly Val Ile Gly His Gln Phe
100     105     110
Gly Gly Gly Arg Gly Lys Asp Val Ala Thr Val Val Gly Ala Leu Gly
115     120     125
Gly Gly Tyr Ala Gly Asn Gln Val Gln Gly Ala Met Gln Glu Asn Asp
130     135     140
Thr Tyr Thr Thr Thr Gln Gln Arg Cys Lys Thr Val Tyr Asp Lys Ser
145     150     155     160
Glu Lys Met Leu Gly Tyr Asp Val Thr Tyr Lys Ile Gly Asp Gln Gln
165     170     175
Gly Lys Ile Arg Met Asp Lys Asp Pro Gly Thr Gln Ile Pro Leu Asp
180     185     190
Ser Asn Gly Gln Leu Ile Leu Asn Asn Lys Val
195     200

```

<210> 7665
 <211> 300
 <212> PRT
 <213> Enterobacter cloacae

<400> 7665

```

Ala Cys Ala Thr Arg Gly Arg Arg Arg His Ala Arg Ser Arg Ile Pro
1      5      10      15
Ser Ser His Arg Leu Val Tyr Glu Val Ile Met Leu Ser Arg Arg Gln
20      25      30
Gly Arg Leu Ser Arg Phe Arg Lys Asn Lys Arg Arg Leu Arg Glu Arg
35      40      45
Leu Arg Gln Arg Ile Phe Phe Arg Asp Arg Met Met Pro Glu Ala Met
50      55      60
Asp Lys Pro Arg Val Val Val Leu Thr Gly Ala Gly Ile Ser Ala Glu
65      70      75      80
Ser Gly Ile Gln Thr Phe Arg Ala Ala Asp Gly Leu Trp Glu Glu His
85      90      95
Arg Val Glu Asp Val Ala Thr Pro Glu Gly Phe Ala Arg Asp Pro Ala
100     105     110
Leu Val Gln Ala Phe Tyr Asn Ala Arg Arg Arg Gln Leu Gln Gln Pro
115     120     125
Glu Ile Ala Pro Asn Ala Ala His Leu Ala Leu Ala Lys Leu Glu Glu
130     135     140
Ala Leu Gly Asp Arg Phe Leu Leu Val Thr Gln Asn Ile Asp Asn Leu
145     150     155     160
His Glu Arg Ala Gly Asn His Asn Ile Ile His Met His Gly Glu Leu
165     170     175

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Leu Lys Val Arg Cys Ala Trp Ser Gly Gln Val Leu Glu Trp Lys Glu
 180 185 190
 Asp Val Leu Asp Glu Asp Arg Cys His Cys Cys Gln Phe Pro Ser Arg
 195 200 205
 Leu Arg Pro His Val Val Trp Phe Gly Glu Met Pro Leu Gly Met Asp
 210 215 220
 Glu Ile Tyr Ser Ala Leu Ala Met Ala Asp Val Phe Ile Ala Ile Gly
 225 230 235 240
 Thr Ser Gly His Val Tyr Pro Ala Ala Gly Phe Val His Glu Ala Arg
 245 250 255
 Leu Gln Gly Ala His Thr Val Glu Leu Asn Leu Glu Pro Ser Gln Val
 260 265 270
 Gly Ser Glu Phe Glu Glu Lys His Tyr Gly Leu Ala Ser Glu Val Val
 275 280 285
 Pro Ala Phe Val Asp Lys Phe Leu Lys Gly Leu
 290 295 300

<210> 7666

<211> 93

<212> PRT

<213> Enterobacter cloacae

<400> 7666

Arg Asn Ile Cys Val Leu Leu Leu Asn Asp Asn Val Val Thr Lys Ser
 1 5 10 15
 Glu Gly Asp Cys Met Asp Lys Leu Leu Glu Arg Phe Leu His Tyr Val
 20 25 30
 Ser Leu Asp Thr Gln Ser Lys Pro Gly Val Arg Gln Val Pro Ser Thr
 35 40 45
 Glu Gly Gln Trp Lys Leu Leu Asn Leu Leu Lys Glu Gln Leu Glu Ala
 50 55 60
 Met Gly Leu Val Asp Val Thr Leu Ser Glu Lys Ala Thr Gly Leu His
 65 70 75 80
 Ala Arg Thr Gly Arg Ile Arg Ala Tyr Val Cys Ala Pro
 85 90

<210> 7667

<211> 353

<212> PRT

<213> Enterobacter cloacae

<400> 7667

Asn Lys Ile Ser Gly Asp Thr Glu Met Lys Lys Met Leu Ala Ala Ala
 1 5 10 15
 Ala Leu Val Leu Gly Met Gly Ala Ala His Ala Asp Asp Ser Lys Thr
 20 25 30
 Leu Tyr Phe Tyr Asn Trp Thr Glu Tyr Val Pro Pro Gly Leu Leu Glu
 35 40 45
 Gln Phe Thr Lys Glu Thr Gly Ile Lys Val Ile Tyr Ser Thr Tyr Glu
 50 55 60
 Ser Asn Glu Thr Met Tyr Ala Lys Leu Lys Thr Tyr Lys Asp Gly Ala
 65 70 75 80
 Tyr Asp Leu Val Val Pro Ser Thr Tyr Phe Val Asp Lys Met Arg Lys
 85 90 95
 Glu Gly Met Ile Gln Lys Ile Asp Lys Thr Lys Leu Thr Asn Phe Ser
 100 105 110
 Asn Leu Asp Pro Glu Met Leu Asn Lys Pro Phe Asp Pro Asn Asn Asp
 115 120 125
 Tyr Ser Ile Pro Tyr Ile Trp Gly Ala Thr Ala Ile Gly Ile Asn Ser
 130 135 140
 Asp Ala Ile Asp Pro Lys Thr Val Ser Ser Trp Ala Asp Leu Trp Lys

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | 155 | | | | 160 |
| Pro | Glu | Tyr | Lys | Ser | Ser | Leu | Leu | Leu | Thr | Asp | Asp | Ala | Arg |
| | | | | 165 | | | | | 170 | | | | Glu |
| Phe | Gln | Val | Ala | Leu | Arg | Lys | Leu | Gly | Tyr | Ser | Gly | Asn | Thr |
| | | | 180 | | | | | 185 | | | | | 190 |
| Pro | Lys | Glu | Ile | Glu | Ala | Ala | Tyr | Asn | Glu | Leu | Lys | Lys | Leu |
| | | | 195 | | | | 200 | | | | | 205 | Met |
| Asn | Val | Ala | Ala | Phe | Asn | Ser | Asp | Asn | Pro | Ala | Asn | Pro | Tyr |
| | | | | | | 215 | | | | | 220 | | Met |
| Gly | Glu | Val | Asn | Leu | Gly | Met | Val | Trp | Asn | Gly | Ser | Ala | Phe |
| | | | | | 230 | | | | | 235 | | | Val |
| Arg | Gln | Ala | Gly | Thr | Pro | Leu | Glu | Val | Val | Trp | Pro | Lys | Glu |
| | | | | 245 | | | | | 250 | | | | Gly |
| Ile | Phe | Trp | Met | Asp | Ser | Leu | Ala | Ile | Pro | Ala | Asn | Ala | Lys |
| | | | 260 | | | | | 265 | | | | | Asn |
| Glu | Gly | Ala | Leu | Lys | Leu | Ile | Asn | Phe | Leu | Leu | Arg | Pro | Asp |
| | | | 275 | | | | 280 | | | | | 285 | Val |
| Lys | Glu | Val | Ala | Glu | Thr | Ile | Gly | Tyr | Pro | Thr | Pro | Asn | Leu |
| | | | 290 | | | 295 | | | | | 300 | | Ala |
| Arg | Lys | Leu | Leu | Ser | Pro | Glu | Val | Ala | Asn | Asp | Lys | Ser | Leu |
| | | | | | 310 | | | | | 315 | | | Tyr |
| Asp | Ala | Glu | Thr | Ile | Ser | Lys | Gly | Glu | Trp | Gln | Asn | Asp | Val |
| | | | | 325 | | | | | 330 | | | | Gly |
| Ala | Ser | Arg | Leu | Tyr | Glu | Glu | Tyr | Tyr | Gln | Lys | Leu | Lys | Ala |
| | | | 340 | | | | | 345 | | | | | Gly |
| | | | | | | | | | | | | 350 | Arg |

<210> 7668

<211> 385

<212> PRT

<213> Enterobacter cloacae

<400> 7668

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Arg | Leu | Leu | Pro | Ile | Thr | Ser | Gly | Leu | His | Phe | Thr | Thr | Ile | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ser | Phe | Met | Ala | Thr | Arg | Ser | Ser | Arg | Thr | Met | Lys | Gln | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Trp | Ile | Asn | Gln | Ile | Lys | Gly | Leu | Cys | Ile | Cys | Leu | Val | Val | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | His | Ser | Val | Ile | Thr | Phe | Tyr | Pro | His | Leu | Asp | Gly | Leu | Gln | His |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Leu | Ser | Gly | Leu | Leu | Ala | Lys | Cys | Trp | Val | Tyr | Phe | Asn | Leu | Tyr |
| | | | | 70 | | | | | | 75 | | | | 80 | |
| Leu | Ala | Pro | Phe | Arg | Met | Pro | Val | Phe | Phe | Phe | Ile | Ser | Gly | Tyr | Leu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ile | Arg | Arg | Tyr | Ile | Asp | Glu | Val | Asn | Trp | Arg | Thr | Ser | Leu | Asp | Lys |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Arg | Ile | Trp | Ser | Ile | Val | Trp | Val | Leu | Ala | Leu | Trp | Gly | Val | Leu | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Trp | Gln | Ala | Leu | Thr | His | Leu | Asn | Ala | Trp | Leu | Ala | Pro | Glu | Arg | Glu |
| | | | | | | 135 | | | | | 140 | | | | |
| Leu | Ala | Thr | Ala | Ser | Asn | Ala | Ala | Tyr | Ala | Asp | Ser | Val | Ser | Gly | Phe |
| | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Leu | Gly | Met | Leu | Thr | Ala | Ser | Thr | Ser | Leu | Trp | Tyr | Leu | Tyr | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Val | Val | Tyr | Phe | Thr | Leu | Cys | Lys | Leu | Leu | Ser | Arg | Trp | Lys | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Met | Leu | Gly | Ile | Leu | Ala | Leu | Ala | Ser | Ile | Ala | Ile | Asn | Phe | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Leu | Pro | Trp | Trp | Gly | Met | Asn | Ser | Val | Val | Arg | Asn | Met | Ile | Tyr |

| | | |
|---|---|-----|
| 210 | 215 | 220 |
| Tyr Ser Leu Gly Ala Trp | Tyr Gly Ala Gln Leu Met Ala Trp Met Lys | |
| 225 | 230 | 235 |
| Gly Met Asn Leu Arg | Ser Trp Leu Val Leu Leu Ala Ser Gly Ala | 240 |
| 245 | 250 | 255 |
| Val Ser Val Val Leu Trp Phe Ala Asn Val Pro Leu Pro Leu Ser Leu | | |
| 260 | 265 | 270 |
| Leu Ser Ile Val Val Ile Met Lys Leu Phe Tyr Ser Phe Glu Gln Arg | | |
| 275 | 280 | 285 |
| Tyr Ala Val His Pro Asn Asn Leu Leu Asn Val Ile Gly Ser Asn Thr | | |
| 290 | 295 | 300 |
| Ile Ala Ile Tyr Thr Thr His Arg Ile Leu Ile Glu Ala Phe Ser Leu | | |
| 305 | 310 | 315 |
| Leu Leu Ile Arg Glu Met Asn Ala Ala Tyr Trp Pro Ile Trp Ala Glu | | |
| 325 | 330 | 335 |
| Leu Thr Leu Ile Leu Val Tyr Pro Phe Ile Ser Leu Leu Val Cys Thr | | |
| 340 | 345 | 350 |
| Leu Val Gly Leu Gly Ala Arg Lys Leu Ser Thr Ala Leu Phe Gly Asp | | |
| 355 | 360 | 365 |
| Leu Phe Phe Ser Pro Pro Ala Arg Leu Ser Pro Gln Thr Ala Thr Arg | | |
| 370 | 375 | 380 |

385

<210> 7669

<211> 404

<212> PRT

<213> Enterobacter cloacae

<400> 7669

| | |
|---|--|
| Asn Val Arg Pro His Tyr Glu Ser Pro Arg Trp Leu His Thr Asn Pro | |
| 1 5 10 15 | |
| Ala Ser Val Cys Cys Leu Arg Arg Leu Tyr Gly Thr Ala Arg Lys Leu | |
| 20 25 30 | |
| Asn Thr Gln Pro Arg Ser Leu Ser Pro Leu Val Gln Leu Glu Arg Ile | |
| 35 40 45 | |
| Arg Lys Ser Phe Asp Gly Lys Asp Val Ile Ser Asp Leu Asn Leu Thr | |
| 50 55 60 | |
| Ile Asn Asp Gly Glu Phe Leu Thr Leu Leu Gly Pro Ser Gly Cys Gly | |
| 65 70 75 80 | |
| Lys Thr Thr Val Leu Arg Leu Ile Ala Gly Leu Glu Ser Val Asp Asn | |
| 85 90 95 | |
| Gly His Ile His Leu Glu Asn Gln Asp Ile Thr Gln Val Pro Ala Glu | |
| 100 105 110 | |
| Asp Arg His Val Asn Thr Val Phe Gln Ser Tyr Ala Leu Phe Pro His | |
| 115 120 125 | |
| Met Thr Val Phe Glu Asn Val Ala Phe Gly Leu Arg Met Gln Lys Thr | |
| 130 135 140 | |
| Pro Ala Ser Glu Ile Pro Pro Arg Val Thr Glu Ala Leu Arg Met Val | |
| 145 150 155 160 | |
| Gln Leu Glu Ala Phe Ala Gln Arg Lys Pro His Gln Leu Ser Gly Gly | |
| 165 170 175 | |
| Gln Gln Gln Arg Val Ala Ile Ala Arg Ala Val Val Asn Lys Pro Arg | |
| 180 185 190 | |
| Leu Leu Leu Leu Asp Glu Ser Leu Ser Ala Leu Asp Tyr Lys Leu Arg | |
| 195 200 205 | |
| Lys Gln Met Gln Asn Glu Leu Lys Ala Leu Gln Arg Lys Leu Gly Ile | |
| 210 215 220 | |
| Thr Phe Val Phe Val Thr His Asp Gln Glu Glu Ala Leu Thr Met Ser | |
| 225 230 235 240 | |
| Asp Arg Ile Val Val Met Arg Asp Gly Lys Ile Glu Gln Asp Gly Thr | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Pro | Arg | Glu | Ile | Tyr | Glu | Glu | Pro | Lys | Asn | Leu | Phe | Val | Ala | Ser | Phe | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Ile | Gly | Glu | Ile | Asn | Ile | Phe | Asn | Ala | Thr | Val | Ile | Glu | Arg | Leu | Asp | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Glu | Gln | Arg | Val | Arg | Ala | Asn | Val | Glu | Gly | Arg | Glu | Cys | Asn | Ile | Thr | | |
| | | 290 | | | | 295 | | | | | 300 | | | | | | |
| Val | Asn | Phe | Ala | Val | Glu | Lys | Gly | Gln | Arg | Leu | Asn | Val | Leu | Leu | Arg | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Pro | Glu | Asp | Leu | Arg | Val | Asp | Glu | Ile | His | Asp | Thr | Ala | Asp | Val | Glu | | |
| | | | | 325 | | | | | 330 | | | | | | 335 | | |
| Gly | Leu | Ile | Gly | Tyr | Val | Arg | Glu | Arg | Asn | Tyr | Lys | Gly | Met | Thr | Leu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Glu | Ser | Val | Val | Glu | Leu | Glu | Asn | Gly | Lys | Met | Val | Met | Val | Ser | Glu | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Phe | Phe | Asn | Glu | Asp | Asp | Pro | Asp | Phe | Asp | His | Ser | Leu | Asp | Gln | Lys | | |
| | | 370 | | | | 375 | | | | | 380 | | | | | | |
| Met | Val | Ile | Asn | Trp | Val | Glu | Ser | Trp | Glu | Val | Val | Leu | Ala | Asp | Glu | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Glu | His | Lys | | | | | | | | | | | | | | | |

<210> 7670

<211> 269

<212> PRT

<213> Enterobacter cloacae

<400> 7670

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Glu | Gly | Gly | Ala | Gly | Met | Ile | Gly | Arg | Leu | Leu | Pro | Ala | Gly | Phe | Met | | |
| 1 | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Thr | Ala | Ile | Tyr | Ala | Tyr | Leu | Tyr | Ile | Pro | Ile | Ile | Ile | Leu | Ile | Val | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Asn | Ser | Phe | Asn | Ser | Ser | Arg | Phe | Gly | Ile | Asn | Trp | Gln | Gly | Phe | Thr | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Thr | Lys | Trp | Tyr | Gly | Leu | Leu | Met | Asn | Asn | Asp | Ser | Leu | Leu | Gln | Ala | | |
| | | 50 | | | | 55 | | | | | 60 | | | | | | |
| Ala | Gln | His | Ser | Leu | Thr | Met | Ala | Val | Phe | Ser | Ala | Thr | Phe | Ala | Thr | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Leu | Ile | Gly | Ser | Leu | Thr | Ala | Val | Ala | Leu | Tyr | Arg | Tyr | Arg | Phe | Arg | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Gly | Lys | Pro | Phe | Val | Ser | Gly | Met | Leu | Phe | Val | Val | Met | Met | Ser | Pro | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Asp | Ile | Val | Met | Ala | Ile | Ser | Leu | Leu | Val | Leu | Phe | Met | Leu | Leu | Gly | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Val | Gln | Leu | Gly | Phe | Trp | Ser | Leu | Leu | Phe | Ser | His | Ile | Thr | Phe | Cys | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Leu | Pro | Phe | Val | Val | Val | Thr | Val | Tyr | Ala | Arg | Leu | Lys | Gly | Phe | Asp | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Val | Arg | Met | Leu | Glu | Ala | Ala | Lys | Asp | Leu | Gly | Ala | Ser | Glu | Met | Thr | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Ile | Leu | Arg | Lys | Ile | Ile | Leu | Pro | Leu | Ala | Met | Pro | Ala | Val | Ala | Ala | | |
| | | | 180 | | | | | 185 | | | | | | 190 | | | |
| Gly | Trp | Leu | Leu | Ser | Phe | Thr | Leu | Ser | Met | Asp | Asp | Val | Val | Val | Ser | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Ser | Phe | Val | Thr | Gly | Pro | Ser | Tyr | Glu | Ile | Leu | Pro | Leu | Lys | Ile | Tyr | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Ser | Met | Val | Lys | Val | Gly | Val | Ser | Pro | Glu | Val | Asn | Ala | Leu | Ala | Thr | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Ile | Leu | Leu | Val | Leu | Ser | Leu | Val | Leu | Val | Ile | Ala | Ser | Gln | Val | Ile | | |
| | | | | 245 | | | | 250 | | | | | | 255 | | | |
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260

265

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<211> 1171

<212> PRT

<213> Enterobacter cloacae

<400> 7671

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Asp | Ser | Asp | Ile | Ala | Met | Pro | Glu | His | Tyr | Arg | Phe | Ser | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Lys | Ala | Gly | Asp | Gln | Arg | Gln | Leu | Gly | Glu | Leu | Thr | Gly | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Ala | Thr | Leu | Val | Ala | Glu | Ile | Ala | Glu | Arg | His | Pro | Gly | Pro | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Leu | Val | Ala | Pro | Asp | Met | Gln | Asn | Ala | Leu | Arg | Leu | His | Asp | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Arg | Gln | Phe | Thr | Asp | Ser | Leu | Val | Phe | Ser | Leu | Ala | Asp | Trp | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Leu | Pro | Tyr | Asp | Ser | Phe | Ser | Pro | His | Gln | Glu | Ile | Ile | Ser | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Leu | Ser | Thr | Leu | Tyr | Gln | Leu | Pro | Thr | Met | Gln | Arg | Gly | Val | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Val | Pro | Val | Asn | Thr | Leu | Met | Gln | Arg | Val | Cys | Pro | His | Ser | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | His | Gly | His | Ala | Leu | Val | Met | Lys | Lys | Gly | Gln | Arg | Leu | Ser | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | Ala | Leu | Arg | Val | Gln | Leu | Asp | Gly | Ala | Gly | Tyr | Arg | His | Val | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gln | Val | Met | Glu | His | Gly | Glu | Tyr | Ala | Thr | Arg | Gly | Ala | Leu | Ser | Asp |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Tyr | Pro | Met | Gly | Ser | Asp | Gln | Pro | Tyr | Arg | Leu | Asp | Phe | Phe | Asp |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asp | Glu | Ile | Asp | Ser | Leu | Arg | Val | Phe | Asp | Ala | Asp | Thr | Gln | Arg | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Glu | Glu | Val | Asp | Ser | Ile | Asn | Leu | Leu | Pro | Ala | His | Glu | Phe | Pro |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Asp | Lys | Thr | Ala | Ile | Glu | Leu | Phe | Arg | Ser | Gln | Trp | Arg | Asp | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Phe | Asp | Val | Lys | Arg | Asp | Ala | Glu | His | Ile | Tyr | Gln | Gln | Val | Ser | Lys |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Gly | Thr | Leu | Pro | Ala | Gly | Ile | Glu | Tyr | Trp | Gln | Pro | Leu | Phe | Phe | Asn |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Glu | Pro | Leu | Pro | Ala | Leu | Phe | Ser | Tyr | Phe | Pro | Ala | Asn | Thr | Leu | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Asn | Thr | Gly | Asp | Ile | Asp | Ala | Ser | Ala | Ser | Arg | Phe | Glu | Ser | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Arg | Ala | Arg | Phe | Glu | Asn | Arg | Gly | Val | Asp | Pro | Met | Arg | Pro | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Pro | Pro | Glu | Met | Leu | Trp | Leu | Arg | Thr | Asp | Glu | Leu | Asn | Ala | Glu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Lys | Arg | Trp | Pro | Arg | Met | Gln | Leu | Lys | Thr | Asp | Ser | Leu | Ala | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Ala | Ala | Asn | Thr | Asn | Leu | Ala | Phe | Arg | Met | Leu | Pro | Asp | Leu | Ala |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Val | Gln | Ala | Gln | Gln | Lys | Ser | Pro | Leu | Asp | Asn | Leu | Arg | Lys | Phe | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Ser | Phe | Thr | Gly | Pro | Val | Val | Phe | Ser | Val | Glu | Ser | Glu | Gly | Arg |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Arg | Glu | Ala | Leu | Gly | Glu | Leu | Leu | Gly | Arg | Ile | Lys | Val | Ala | Pro | Lys |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|--|--|-----|--|--|-----|--|--|
| | | | | | | | | | | 420 | | | | | | | 425 | | | | | | | 430 | | |
| Arg | Ile | Leu | Arg | Leu | Ser | Glu | Ala | Thr | Gly | Asn | Gly | Arg | Tyr | Leu | Met | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 435 | | | 440 | | | 445 | | | | | |
| Ile | Gly | Ala | Ala | Glu | His | Gly | Phe | Ile | Asp | Thr | Leu | Asn | Asn | Leu | Ala | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 450 | | | 455 | | | 460 | | | | | |
| Leu | Ile | Cys | Glu | Ser | Asp | Leu | Leu | Gly | Glu | Arg | Val | Ala | Arg | Arg | Arg | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 465 | | | 470 | | | 475 | | | 480 | | |
| Gln | Asp | Ser | Arg | Arg | Thr | Ile | Asn | Pro | Asp | Thr | Leu | Ile | Arg | Asn | Leu | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 485 | | | 490 | | | 495 | | | | | |
| Ala | Glu | Leu | His | Pro | Gly | Gln | Pro | Ile | Val | His | Leu | Glu | His | Gly | Val | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 500 | | | 505 | | | 510 | | | | | |
| Gly | Arg | Tyr | Gln | Gly | Met | Thr | Thr | Leu | Glu | Ala | Gly | Gly | Ile | Lys | Gly | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 515 | | | 520 | | | 525 | | | | | |
| Glu | Tyr | Leu | Met | Leu | Thr | Tyr | Ala | Asn | Asp | Ala | Lys | Leu | Tyr | Val | Pro | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 530 | | | 535 | | | 540 | | | | | |
| Val | Ser | Ser | Leu | His | Leu | Ile | Ser | Arg | Tyr | Ala | Gly | Gly | Ala | Glu | Glu | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 545 | | | 550 | | | 555 | | | 560 | | |
| Asn | Ala | Pro | Leu | His | Lys | Leu | Gly | Gly | Asp | Ala | Trp | Ala | Arg | Ala | Arg | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 565 | | | 570 | | | 575 | | | | | |
| Gln | Lys | Ala | Ala | Glu | Lys | Val | Arg | Asp | Val | Ala | Ala | Glu | Leu | Leu | Asp | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 580 | | | 585 | | | 590 | | | | | |
| Ile | Tyr | Ala | Gln | Arg | Ala | Ala | Lys | Glu | Gly | Tyr | Ala | Phe | Lys | His | Asp | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 595 | | | 600 | | | 605 | | | | | |
| Lys | Glu | Gln | Tyr | Gln | Leu | Phe | Cys | Asp | Ser | Phe | Pro | Phe | Glu | Thr | Thr | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 610 | | | 615 | | | 620 | | | | | |
| Pro | Asp | Gln | Ala | Gln | Ala | Ile | Asn | Ala | Val | Leu | Ser | Asp | Met | Cys | Gln | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 625 | | | 630 | | | 635 | | | 640 | | |
| Pro | Leu | Ala | Met | Asp | Arg | Leu | Val | Cys | Gly | Asp | Val | Gly | Phe | Gly | Lys | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 645 | | | 650 | | | 655 | | | | | |
| Thr | Glu | Val | Ala | Met | Arg | Ala | Ala | Phe | Leu | Ala | Val | Glu | Asn | Lys | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 660 | | | 665 | | | 670 | | | | | |
| Gln | Val | Ala | Val | Leu | Val | Pro | Thr | Thr | Leu | Leu | Ala | Gln | Gln | His | Phe | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 675 | | | 680 | | | 685 | | | | | |
| Asp | Asn | Phe | Arg | Asp | Arg | Phe | Ala | Asn | Trp | Pro | Val | Arg | Ile | Glu | Met | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 690 | | | 695 | | | 700 | | | | | |
| Leu | Ser | Arg | Phe | Arg | Ser | Ala | Lys | Glu | Gln | Thr | Gln | Ile | Leu | Glu | Gln | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 705 | | | 710 | | | 715 | | | 720 | | |
| Ala | Ser | Glu | Gly | Lys | Ile | Asp | Ile | Leu | Ile | Gly | Thr | His | Lys | Leu | Leu | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 725 | | | 730 | | | 735 | | | | | |
| Gln | Ser | Asp | Val | Lys | Trp | Lys | Asp | Leu | Gly | Leu | Leu | Ile | Val | Asp | Glu | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 740 | | | 745 | | | 750 | | | | | |
| Glu | His | Arg | Phe | Gly | Val | Arg | His | Lys | Glu | Arg | Ile | Lys | Ala | Met | Arg | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 755 | | | 760 | | | 765 | | | | | |
| Ala | Asn | Val | Asp | Ile | Leu | Thr | Leu | Thr | Ala | Thr | Pro | Ile | Pro | Arg | Thr | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 770 | | | 775 | | | 780 | | | | | |
| Leu | Asn | Met | Ala | Met | Ser | Gly | Met | Arg | Asp | Leu | Ser | Ile | Ile | Ala | Thr | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 785 | | | 790 | | | 795 | | | 800 | | |
| Pro | Pro | Ala | Arg | Arg | Leu | Ala | Val | Lys | Thr | Phe | Val | Arg | Glu | Tyr | Asp | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 805 | | | 810 | | | 815 | | | | | |
| Asn | Leu | Val | Val | Arg | Glu | Ala | Ile | Leu | Arg | Glu | Val | Leu | Arg | Gly | Gly | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 820 | | | 825 | | | 830 | | | | | |
| Gln | Val | Tyr | Tyr | Leu | Tyr | Asn | Asp | Val | Glu | Asn | Ile | Gln | Lys | Ala | Ala | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 835 | | | 840 | | | 845 | | | | | |
| Asp | Arg | Leu | Ala | Glu | Leu | Val | Pro | Glu | Ala | Arg | Ile | Ala | Ile | Gly | His | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 850 | | | 855 | | | 860 | | | | | |
| Gly | Gln | Met | Arg | Glu | Arg | Glu | Leu | Glu | Arg | Val | Met | Asn | Asp | Phe | His | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 865 | | | 870 | | | 875 | | | 880 | | |
| His | Gln | Arg | Phe | Asn | Val | Leu | Val | Cys | Thr | Thr | Ile | Ile | Glu | Thr | Gly | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 885 | | | 890 | | | 895 | | | | | |
| Ile | Asp | Ile | Pro | Thr | Ala | Asn | Thr | Ile | Ile | Ile | Glu | Arg | Ala | Asp | His | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 900 | | | 905 | | | 910 | | | | | |

Phe Gly Leu Ala Gln Leu His Gln Leu Arg Gly Arg Val Gly Arg Ser
 915 920 925
 His His Gln Ala Tyr Ala Trp Leu Leu Thr Pro His Pro Lys Ala Met
 930 935 940
 Thr Thr Asp Ala Gln Lys Arg Leu Glu Ala Ile Ala Ser Leu Glu Asp
 945 950 955 960
 Leu Gly Ala Gly Phe Ala Leu Ala Thr His Asp Leu Glu Ile Arg Gly
 965 970 975
 Ala Gly Glu Leu Leu Gly Glu Asp Gln Ser Gly Ser Met Glu Thr Ile
 980 985 990
 Gly Phe Ser Leu Tyr Met Glu Leu Leu Glu Asn Ala Val Asp Ala Leu
 995 1000 1005
 Lys Ala Gly Arg Glu Pro Ser Leu Glu Asp Leu Thr Ser Gln Gln Thr
 1010 1015 1020
 Glu Val Glu Leu Arg Met Pro Ser Leu Leu Pro Asp Asp Phe Ile Pro
 1025 1030 1035 1040
 Asp Val Asn Thr Arg Leu Ser Phe Tyr Lys Arg Ile Ala Ser Ala Lys
 1045 1050 1055
 Ser Glu Gly Glu Leu Glu Glu Ile Lys Val Glu Leu Ile Asp Arg Phe
 1060 1065 1070
 Gly Ile Leu Pro Asp Ala Ala Arg Asn Leu Leu Asp Ile Ala Arg Leu
 1075 1080 1085
 Arg Gln Gln Ala Gln Lys Leu Gly Ile Arg Lys Leu Glu Gly Asn Glu
 1090 1095 1100
 Lys Gly Gly Val Ile Glu Phe Ala Glu Lys Asn His Val Asp Pro Met
 1105 1110 1115 1120
 Trp Leu Ile Gly Leu Leu Gln Lys Gln Pro Gln His Phe Arg Leu Asp
 1125 1130 1135
 Gly Pro Thr Arg Leu Lys Phe Thr Gln Asp Leu Thr Glu Arg Lys Thr
 1140 1145 1150
 Arg Met Asp Trp Val Arg Asn Phe Met Arg Gln Leu Glu Glu Asn Ala
 1155 1160 1165
 Ile Ala
 1170

<210> 7672

<211> 340

<212> PRT

<213> Enterobacter cloacae

<400> 7672

Leu Ser Leu Thr Pro Tyr Lys Thr Ile Thr Leu Ser Phe Val Trp Ile
 1 5 10 15
 Met Ile Met Met Ile Ser Ser Arg Phe Thr Arg Trp Leu Thr Leu Val
 20 25 30
 Ala Leu Ala Ala Thr Val Ala Val Ala Leu Pro Ala Arg Ala Asn Thr
 35 40 45
 Trp Pro Leu Pro Pro Ala Gly Ser Asn Val Val Gly Glu Asn Arg Phe
 50 55 60
 His Val Val Glu Asn Asp Gly Gly Ser Leu Glu Ala Ile Ala Lys Lys
 65 70 75 80
 Tyr Asn Val Gly Phe Leu Ala Leu Leu Gln Ala Asn Pro Gly Val Asp
 85 90 95
 Pro Tyr Val Pro Arg Ala Gly Ser Val Leu Thr Ile Pro Leu Gln Thr
 100 105 110
 Ile Leu Pro Asp Ala Pro Arg Gln Gly Ile Val Ile Asn Leu Ala Glu
 115 120 125
 Leu Arg Leu Tyr Tyr Tyr Pro Pro Gly Lys Asn Glu Val Thr Val Tyr
 130 135 140
 Pro Ile Gly Ile Gly Gln Leu Gly Gly Asp Thr Leu Thr Pro Thr Met
 145 150 155 160

Val Thr Thr Val Ser Asp Lys Arg Ala Asn Pro Thr Trp Thr Pro Thr
 165 170 175
 Ala Asn Ile Arg Ala Arg Tyr Lys Ala Gln Gly Ile Asp Leu Pro Ala
 180 185 190
 Val Val Pro Ala Gly Pro Asp Asn Pro Met Gly His His Ala Ile Arg
 195 200 205
 Leu Ala Ala Tyr Gly Gly Val Tyr Leu Leu His Gly Thr Asn Ala Asp
 210 215 220
 Phe Gly Ile Gly Met Arg Val Ser Ser Gly Cys Ile Arg Leu Arg Asp
 225 230 235 240
 Asp Asp Ile Lys Thr Leu Tyr Arg Val Ile Ala Pro Gly Thr Lys Val
 245 250 255
 Asn Ile Ile Asn Thr Pro Ile Lys Val Ser Glu Glu Pro Gly Gly Val
 260 265 270
 Arg Leu Val Glu Ile His Gln Pro Leu Ser Lys Asn Ile Asn Asp Asp
 275 280 285
 Pro Gln Thr Leu Pro Ile Asn Leu Asn Ala Ser Met Val Ser Phe Lys
 290 295 300
 Thr Asn Ala Asn Thr Asp Gly Ala Val Met Glu Arg Ala Met Glu Ala
 305 310 315 320
 Arg Ser Gly Met Pro Thr Asp Val Thr Arg His His Glu Val Ala Gln
 325 330 335
 Gln Ser Met
 340

<210> 7673

<211> 294

<212> PRT

<213> Enterobacter cloacae

<400> 7673

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 20 25 30
 Leu Pro Asn Leu Met Ile Ile Val Thr Ser Phe Leu Thr Arg Asp Asp
 35 40 45
 Ala Asn Phe Val Ala Met Val Phe Thr Leu Asp Asn Tyr Ala Arg Leu
 50 55 60
 Leu Asp Pro Leu Tyr Phe Asp Val Leu Leu His Ser Leu Asn Met Ala
 65 70 75 80
 Leu Ile Ala Thr Leu Ala Cys Leu Val Leu Gly Tyr Pro Phe Ala Trp
 85 90 95
 Phe Leu Ala Arg Leu Pro Gln Lys Val Arg Pro Leu Leu Leu Phe Leu
 100 105 110
 Leu Ile Val Pro Phe Trp Thr Asn Ser Leu Ile Arg Ile Tyr Gly Leu
 115 120 125
 Lys Ile Phe Leu Ser Thr Lys Gly Tyr Leu Asn Glu Phe Leu Leu Trp
 130 135 140
 Leu Gly Val Ile Glu Thr Pro Ile Arg Ile Met Phe Thr Pro Gly Ala
 145 150 155 160
 Val Ile Val Gly Leu Val Tyr Ile Leu Leu Pro Phe Met Val Met Pro
 165 170 175
 Leu Tyr Ser Ser Ile Glu Lys Leu Asn Lys Pro Leu Leu Glu Ala Ala
 180 185 190
 Lys Asp Leu Gly Ala Ser Lys Leu Gln Thr Phe Val Arg Ile Ile Ile
 195 200 205
 Pro Leu Thr Met Pro Gly Ile Ile Ala Gly Cys Leu Leu Val Met Leu
 210 215 220
 Pro Ala Met Gly Leu Phe Tyr Val Ser Asp Leu Met Gly Gly Ala Lys
 225 230 235 240

Asn Leu Leu Ile Gly Asn Val Ile Lys Ser Gln Phe Leu Asn Ile Arg
 245 250 255
 Asp Trp Pro Phe Gly Ser Ala Thr Ser Ile Thr Leu Thr Val Val Met
 260 265 270
 Gly Leu Met Leu Leu Val Tyr Trp Arg Ala Ser Arg Leu Leu Asn Lys
 275 280 285
 Lys Val Glu Leu Glu
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<210> 7674

<211> 223

<212> PRT

<213> Enterobacter cloacae

<400> 7674

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 20 25 30
 Asp Ala Ala Leu Asp Lys Ala Met Thr Leu Phe Trp Gln His Gly Tyr
 35 40 45
 Glu Ala Thr Ser Leu Ser Asp Leu Val Glu Ala Thr Gly Ala Lys Ala
 50 55 60
 Pro Thr Leu Tyr Ala Glu Phe Thr Asn Lys Glu Gly Leu Phe Arg Ala
 65 70 75 80
 Val Leu Asp Arg Tyr Ile Ser Arg Phe Ala Ala Lys His Glu Ala Gln
 85 90 95
 Leu Phe Cys Glu Lys Thr Val Glu Gln Ala Leu Gln Asp Tyr Phe
 100 105 110
 Thr Ala Ile Ala Thr Cys Tyr Thr Ser Lys Asp Thr Pro Ala Gly Cys
 115 120 125
 Phe Met Ile Asn Thr Ser Ala Thr Leu Ala Ala Ser Ser Lys Glu Ile
 130 135 140
 Ala Asn Thr Val Lys Ser Arg His Ala Met Gln Glu Glu Thr Leu Ser
 145 150 155 160
 Thr Phe Leu Ala Gln Arg Gln Leu Arg Gly Glu Ile Pro Ala His Cys
 165 170 175
 Arg Pro Gln Glu Leu Ala Gln Tyr Leu Ser Cys Ile Leu Gln Gly Met
 180 185 190
 Ser Ile Ser Ala Arg Glu Gly Ala Thr Leu Glu Lys Leu Gln Gly Ile
 195 200 205
 Thr His Thr Thr Leu Arg Leu Trp Pro Glu Leu Leu Lys Leu
 210 215 220

<210> 7675

<211> 282

<212> PRT

<213> Enterobacter cloacae

<400> 7675

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 20 25 30
 Asn Gln Asp Gln Thr Gly Glu Thr Ile Gly Glu Arg Ser Ala Cys Phe
 35 40 45
 Val Val Cys Asp Gly Ile Ala Gly Leu Pro Gly Gly Glu Val Ala Ala
 50 55 60
 Glu Leu Ala Arg Asn Ser Ile Ile Ser Arg Phe Asp Gly Asp Lys His
 65 70 75 80
 Leu Asn Ala Gln His Ile Arg Asp Tyr Val Gln Thr Ala Asn Arg Thr


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<211> 914
<212> PRT
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| <400> 7676 | | | | | | | | | | | | | | | |
| Arg 1 | Arg | Ala | Ile | Arg 5 | Val | Gln | His | Leu | Ala 10 | Arg | Pro | Ser | Ala | Ser 15 | Ala |
| Cys | Ser | Ala | Trp 20 | Arg | Ser | Gly | Val | Ser 25 | Arg | Arg | Ala | Ile | Ile 30 | Leu | Pro |
| Tyr | Thr | Glu 35 | Ser | Leu | Leu | Met | Glu 40 | Thr | Asn | Met | Ser | Glu 45 | Ile | Ser | Arg |
| Ala | Val 50 | Leu | Phe | Gly | Lys | Leu 55 | Asp | Thr | Leu | Leu | Phe 60 | Thr | Ser | Leu | Glu |
| Ser 65 | Ala | Thr | Ala | Phe | Cys 70 | Lys | Leu | Arg | Gly | Asn 75 | Pro | Tyr | Val | Glu | Leu 80 |
| Val | His | Trp | Leu | His 85 | Gln | Leu | Met | Gln | Gln 90 | Gln | Asp | Gly | Asp | Leu 95 | Gln |
| Gln | Val | Ile | Arg 100 | His | Phe | Ala | Leu | Asp 105 | Glu | Gln | Gln | Leu | Thr 110 | Arg | Asp |
| Ile | Val | Ala 115 | Ala | Leu | Asp | Ala | Leu 120 | Pro | Arg | Gly | Ala | Ser 125 | Ser | Val | Ser |
| Asp | Leu 130 | Ser | Glu | His | Ile | Asp 135 | Ser | Ala | Val | Glu | Arg 140 | Ala | Trp | Val | Tyr |
| Gly 145 | Ser | Leu | Lys | Phe | Gly 150 | Val | Ser | Arg | Ile | Arg 155 | Gly | Gly | His | Leu | Leu 160 |
| Ile | Gly | Ile | Leu | Lys 165 | Thr | Trp | Asn | Leu | Ala 170 | Asn | Val | Leu | Lys | Ser 175 | Ile |
| Ser | Ala | Gln | Phe 180 | Thr | Arg | Leu | Asn 185 | Val | Glu | Val | Leu | Val | Glu 190 | Gln | Phe |
| Asp | Ala | Ile 195 | Cys | Ala | Ser | Ser | Lys 200 | Glu | Ser | Gln | Gln | Ala 205 | Ala | Ala | Ala |
| Ala | Asp 210 | Ala | Pro | Ala | Gly | Ala 215 | Val | Pro | Ala | Ala | Gln 220 | Gly | Thr | Leu | Ala |
| Gln | Tyr | Gly | Gln | Asp | Leu | Thr | Ala | Arg | Ala | Arg | Glu | Gly | Lys | Ile | Asp |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Pro | Val | Val | Gly | Arg | Asp | Glu | Glu | Ile | Arg | Gln | Met | Val | Asp | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Met | Arg | Arg | Arg | Gln | Asn | Asn | Pro | Leu | Leu | Thr | Gly | Glu | Ala | Gly |
| | | | 260 | | | | | 265 | | | | | | 270 |
| Gly | Lys | Thr | Ala | Val | Val | Glu | Gly | Leu | Ala | Leu | Arg | Ile | Ala | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | |
| Asp | Val | Pro | Glu | Pro | Leu | Gln | Asn | Val | Gln | Leu | Trp | Leu | Leu | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | |
| Gly | Met | Leu | Gln | Ala | Gly | Ala | Gly | Met | Lys | Gly | Glu | Phe | Glu | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | 320 |
| Leu | Gln | Ala | Leu | Ile | Asn | Glu | Val | Gln | Ser | Ser | Ala | Thr | Pro | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 |
| Leu | Phe | Ile | Asp | Glu | Ile | His | Thr | Leu | Ile | Gly | Ala | Gly | Gly | Gln |
| | | | 340 | | | | | 345 | | | | | | 350 |
| Gly | Thr | Gly | Asp | Ala | Ala | Asn | Leu | Leu | Lys | Pro | Ala | Leu | Ala | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | |
| Gln | Leu | Arg | Thr | Ile | Gly | Ala | Thr | Thr | Trp | Ala | Glu | Tyr | Lys | Lys |
| 370 | | | | | 375 | | | | | | 380 | | | |
| Ile | Glu | Lys | Asp | Pro | Ala | Leu | Thr | Arg | Arg | Phe | Gln | Thr | Val | Gln |
| 385 | | | | 390 | | | | | | 395 | | | | 400 |
| His | Glu | Pro | Asp | Glu | Ala | Lys | Ala | Val | Leu | Met | Leu | Arg | Ser | Thr |
| | | | 405 | | | | | | 410 | | | | | 415 |
| Ser | Pro | Leu | Glu | Thr | His | His | Gln | Val | Leu | Leu | Leu | Asp | Glu | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | |
| Ser | Ala | Ala | Val | Lys | Leu | Ser | His | Arg | Tyr | Ile | Pro | Ala | Arg | Gln |
| | 435 | | | | | | 440 | | | | | 445 | | |
| Pro | Asp | Lys | Ala | Val | Ala | Leu | Leu | Asp | Thr | Ala | Cys | Ala | Arg | Val |
| | 450 | | | | | 455 | | | | | 460 | | | |
| Val | Ser | Gln | Ser | Ala | Pro | Pro | Ala | Gln | Leu | Glu | Asp | Cys | Leu | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | 480 |
| Leu | Ala | Ala | Leu | Asp | Val | Glu | Leu | Glu | Ile | Ala | Glu | Arg | Glu | Ala |
| | | | 485 | | | | | | 490 | | | | | 495 |
| Val | Gly | Ala | Gly | Asp | Pro | Ala | Arg | Val | Ala | Thr | Leu | Thr | Ala | Glu |
| | | | 500 | | | | | 505 | | | | | 510 | |
| Asp | Ala | Phe | Glu | Thr | Gln | Arg | Glu | Ala | Leu | Ala | Arg | Arg | Trp | Glu |
| | 515 | | | | | | 520 | | | | | 525 | | |
| Glu | Arg | Thr | Arg | Val | Gln | Glu | Ile | Ile | Arg | Leu | Arg | Ala | Ala | Leu |
| 530 | | | | | | 535 | | | | | 540 | | | |
| Ala | Ala | Gly | Asp | Glu | Asp | Thr | Ala | Glu | Leu | Arg | Gly | Gln | Leu | Ala |
| 545 | | | | | 550 | | | | | 555 | | | | 560 |
| Gln | Gln | Gln | Ala | Leu | Lys | Ile | Leu | Gln | Gly | Asp | Glu | Pro | Leu | Leu |
| | | | 565 | | | | | | 570 | | | | | 575 |
| Ala | Ala | Val | Asp | Glu | Asn | Val | Val | Ala | Ala | Val | Val | Ser | Asp | Trp |
| | | | 580 | | | | | 585 | | | | | 590 | |
| Gly | Ile | Pro | Leu | Gly | Arg | Met | Val | Lys | Asn | Glu | Ile | Asp | Ala | Val |
| | 595 | | | | | | 600 | | | | | 605 | | |
| Asn | Leu | Ala | Asp | Thr | Leu | Asn | Gln | Arg | Val | Ile | Gly | Gln | Arg | His |
| | 610 | | | | | 615 | | | | | 620 | | | |
| Leu | Asp | Leu | Ile | Ala | Arg | Arg | Val | Lys | Thr | Ser | Arg | Ala | Lys | Leu |
| 625 | | | | | 630 | | | | | 635 | | | | 640 |
| Asp | Pro | Asn | Lys | Pro | Val | Gly | Val | Phe | Met | Leu | Cys | Gly | Pro | Ser |
| | | | 645 | | | | | | 650 | | | | | 655 |
| Val | Gly | Lys | Thr | Glu | Thr | Ala | Leu | Ala | Leu | Ala | Glu | Ser | Leu | Tyr |
| | | | 660 | | | | | 665 | | | | | 670 | |
| Gly | Glu | Gln | Asn | Val | Ile | Thr | Ile | Asn | Met | Ser | Glu | Phe | Gln | Glu |
| | | 675 | | | | | 680 | | | | | 685 | | |
| His | Thr | Val | Ser | Thr | Leu | Lys | Gly | Ala | Pro | Pro | Gly | Tyr | Val | Gly |
| | 690 | | | | | 695 | | | | | 700 | | | |
| Gly | Glu | Gly | Gly | Val | Leu | Thr | Glu | Ala | Val | Arg | Arg | Arg | Pro | Tyr |
| 705 | | | | | 710 | | | | | 715 | | | | 720 |

Val Val Leu Leu Asp Glu Ile Glu Lys Ala His Pro Asp Val His Glu
 725 730 735
 Ile Phe Phe Gln Val Phe Asp Lys Gly Trp Met Glu Asp Gly Glu Gly
 740 745 750
 Arg His Ile Asp Phe Arg Asn Thr Ile Ile Ile Leu Thr Ser Asn Val
 755 760 765
 Gly Thr Glu Leu Ile Ser Ala Met Cys Ala Asp Pro Asp Leu Met Pro
 770 775 780
 Glu Pro Glu Ala Leu Ser Gly Ala Leu Arg Gln Pro Leu Leu Glu Val
 785 790 795 800
 Phe Pro Pro Ala Leu Leu Gly Arg Leu Leu Val Val Pro Tyr Tyr Pro
 805 810 815
 Leu Ser Asp Glu Met Leu Gly Gln Ile Val Arg Leu Gln Leu Arg Arg
 820 825 830
 Ile Gln Arg Arg Leu Glu Glu Asn His Asn Ile Ile Ser Glu Phe Asp
 835 840 845
 Asp Ser Val Val Glu Gln Ile Val Gln Arg Cys Thr Glu Val Glu Ser
 850 855 860
 Gly Gly Arg Met Val Asp Ala Ile Leu Thr Asn Thr Leu Leu Pro Gln
 865 870 875 880
 Met Ser Gln Ile Leu Leu Thr Ala Ser Arg Ser Asp Gln Gln Tyr Arg
 885 890 895
 Arg Leu His Val Thr Cys Glu Gln Gly Glu Phe His Cys Gln Phe Ala
 900 905 910
 Ala

<210> 7677

<211> 479

<212> PRT

<213> Enterobacter cloacae

<400> 7677

Lys Met Thr Asp Asn Asp Asn Asn Arg Thr Val Pro Asn Ala Leu Pro
 1 5 10 15
 Val Gly Tyr Arg Phe Asn Glu Phe Glu Ile Lys Glu Val Ile Gly Gly
 20 25 30
 Gly Gly Phe Gly Ile Val Tyr Arg Ala Trp Asp His Gln Leu Glu Arg
 35 40 45
 Thr Ile Ala Ile Lys Glu Phe Met Pro Ser Ser Leu Ala Val Arg Gly
 50 55 60
 Glu Asp Met Thr Leu Val Leu Arg Ser Glu Arg Phe Gly Lys Ala Phe
 65 70 75 80
 Ser Ala Gly Leu Asn Ser Phe Ile Gln Glu Ala Arg Leu Leu Ala Arg
 85 90 95
 Phe Asn His Pro Asn Leu Leu His Val Leu Arg Phe Trp Val Gln Asn
 100 105 110
 Asp Thr Ala Tyr Met Gly Thr Leu Phe Tyr Ser Gly Thr Thr Leu Ser
 115 120 125
 Arg Leu Arg Glu Glu Lys Pro Glu Leu Ile Asn Glu Ala Trp Ile Arg
 130 135 140
 Arg Met Leu Pro Met Leu Phe Gly Ala Ile Lys Thr Ile His Asp Glu
 145 150 155 160
 Gly Tyr Leu His Arg Asp Ile Ser Leu Asp Asn Ile Gln Ile Gln Asp
 165 170 175
 Asn Gly Leu Pro Val Leu Leu Asp Phe Gly Ser Ala Arg Arg Thr Ile
 180 185 190
 Gly Asn Leu Ser Asp Glu Thr Glu Thr Met Leu Arg Pro Gly Phe Ala
 195 200 205
 Pro Ile Glu Gln Tyr Thr Asp Asp Asn Glu Ser Glu Gln Gly Pro Trp
 210 215 220

Thr Asp Ile Tyr Ala Leu Gly Ala Val Leu Arg Thr Leu Ile Val Gly
 225 230 235 240
 Ser Pro Pro Pro Val Ser Val Val Arg Ser Ile Gln Asp Thr Cys Lys
 245 250 255
 Pro Leu Val Glu Leu Met Pro Gln Gly Tyr Ser Ile Pro Leu Leu Gln
 260 265 270
 Ala Ile Asp Lys Ala Leu Ala Leu His Met Glu Asp Arg Pro Gln Ser
 275 280 285
 Ile Glu Glu Phe Ala Ala Leu Ile Glu Met Pro Val Ala Gly Ile Asp
 290 295 300
 Glu Val Leu Thr Ala Lys Lys Thr Gly Thr Met Leu Val Pro Val Glu
 305 310 315 320
 Glu Glu Ala Ser Ala Ser Ala Leu Asp Trp Arg Arg Tyr Lys Leu Pro
 325 330 335
 Gly Leu Val Ala Ala Gly Val Leu Val Gly Val Val Ala Gly Ala Met
 340 345 350
 Leu Phe Gly Gly Gly Ser Gln Glu Thr Pro Glu Gln Thr Ala Gln Thr
 355 360 365
 Pro Ala Val Ser Pro Pro Ala Glu Thr Ser Ser Gln Ser Glu Thr Arg
 370 375 380
 Pro Ala Thr Ala Asp Val Ser Glu Pro Val Ala Pro Pro Ala Thr Ala
 385 390 395 400
 Gln Gln Ser Ala Pro Pro Val Asp Ala Ser Pro Val Ala Leu Val Tyr
 405 410 415
 Ile Arg Met Leu Asp Gly Glu Thr Leu Lys Val Asn Gly Glu Ser Lys
 420 425 430
 Ala Leu Arg Pro Gly Asn Asn Gly Tyr Ala Ser Leu Lys Leu Pro Ala
 435 440 445
 Gly Glu Thr Arg Ile Glu Leu Glu Gly Asn Gly Arg Thr Arg Thr Gln
 450 455 460
 Thr Leu Asp Ile Ala Lys Pro Gly Thr Trp Leu Val Asn Pro
 465 470 475

<210> 7678

<211> 263

<212> PRT

<213> Enterobacter cloacae

<400> 7678

Gly Tyr Phe Asp Asn Arg Glu Ser Ile Val Lys Lys Gly Leu Met Ala
 1 5 10 15
 Phe Val Ala Leu Cys Phe Leu Phe Met Ile Gln Gly Cys Lys Gln Asp
 20 25 30
 Met Asp Leu Asn Pro Gln Asp Tyr Phe Ser Gly Gln Gln Leu Glu Leu
 35 40 45
 Ala Lys Ala Ile Glu Glu Gly Asp Val Asp Ala Val Lys Thr Leu Ala
 50 55 60
 Pro Asp Ser Asp Leu Asn Lys Pro Gly Lys Gln Asp Met Thr Leu Leu
 65 70 75 80
 Phe Trp Ala Ile Gly Asn Ala Ile Asn Asp Lys Lys Thr Ser Pro His
 85 90 95
 Leu Lys Val Ile Thr Leu Leu Val Lys Ala Gly Ala Asp Pro Leu Gln
 100 105 110
 Pro Arg Pro Gln Gly Lys Ser Ser Pro Ala Glu Phe Ala Leu Lys Gly
 115 120 125
 Asp Ser Ala Asp Trp Ile Asp Ala Met Leu Asp Gly Gly Leu Ser Pro
 130 135 140
 Asn Val Lys Asp Lys Val Phe His Glu Pro Ile Val Phe Gln Ser Leu
 145 150 155 160
 Lys Ala Lys Asn Thr Glu Thr Leu Glu Ala Met Leu Asn Arg Gly Ala
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Val | Asn | Ser | Thr | Asn | Ser | Leu | Gly | Lys | Thr | Leu | Val | Phe | Asp | Ala |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Asp | Asn | Gln | Ala | Tyr | Asp | His | Val | Leu | Leu | Leu | Leu | Asp | Arg | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Asp | Pro | Ser | Ile | Lys | Ala | Lys | Asn | Gly | Trp | Ser | Met | Ser | Asn | Ala |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Leu | Ala | Asp | Ala | Leu | Asn | Gly | Leu | Glu | Arg | Gly | Ser | Glu | Gln | Tyr | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Leu | Asn | Glu | Ile | Lys | Glu | Lys | Leu | Ile | Gln | Lys | Gly | Gly | Glu | Trp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Pro | Ala | Pro | Val | Lys | | | | | | | | | | |
| | | | 260 | | | | | | | | | | | | |

<210> 7679

<211> 398

<212> PRT

<213> Enterobacter cloacae

<400> 7679

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Val | Arg | Arg | Pro | Ile | Thr | Arg | Thr | Phe | Thr | Phe | Lys | Lys | Pro | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Lys | Asn | Ile | Leu | Ser | Ile | Asn | His | Tyr | Gly | Ile | Lys | Ile | Met | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Arg | Ile | Thr | Val | Gln | Leu | Pro | Val | Glu | Gly | Leu | Leu | Phe | Trp | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ser | Gly | Arg | Glu | Ala | Met | Ser | Glu | Ser | Phe | Ala | Leu | Thr | Leu | Thr |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Leu | Gly | Thr | Asp | Ala | Arg | Ile | Asp | Arg | Ser | Arg | Leu | Leu | Gly | Gln |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Pro | Val | Thr | Val | Thr | Ile | Pro | Thr | Gln | Ser | Leu | Leu | Thr | Pro | Arg | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Asn | Gly | Lys | Val | Thr | Arg | Val | Ala | Val | Ser | Ala | Val | Glu | Leu | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Thr | Arg | Tyr | Ala | Val | Tyr | Gln | Leu | Thr | Val | Glu | Pro | Asp | Leu | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Met | Lys | Arg | Asp | Arg | Asn | Leu | Arg | Ile | Phe | Gln | Gly | Gln | Thr | Val |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Pro | Gln | Ile | Val | Lys | Thr | Leu | Leu | Gly | Glu | His | Gln | Val | Asn | Leu | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | Lys | Leu | Thr | Gly | Ser | Tyr | Arg | Val | Trp | Asp | Tyr | Cys | Val | Gln | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gln | Glu | Ser | Ser | Leu | Asp | Phe | Ile | Ser | Arg | Leu | Met | Glu | Leu | Glu | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Ala | Tyr | Tyr | Phe | Ser | His | Glu | Ala | Asp | Lys | His | Thr | Leu | Val | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Asp | Ala | Ala | Pro | Gln | His | Gln | Pro | Phe | Ser | Gly | Tyr | Glu | Val | Ile |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Pro | Tyr | His | Gln | Thr | Pro | Ser | Gly | Gly | Ser | Thr | Asp | Glu | Glu | Gly | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Gln | Trp | Ala | Leu | Glu | Asp | Ser | Val | Thr | Pro | Gly | Ile | Tyr | Ser | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Asp | Tyr | Asp | Phe | Arg | Lys | Pro | Asn | Ala | Trp | Leu | Phe | Gln | Ala | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Tyr | Pro | Ala | Ser | Pro | Lys | Pro | Gly | Ser | Ile | Asp | Val | Tyr | Asp | Trp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Pro | Gly | Arg | Phe | Val | Glu | Ser | Ala | His | Thr | Glu | Ile | Tyr | Ala | Ser | Phe |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Pro | Arg | Glu | Leu | Trp | Gln | Leu | Glu | His | Gln | Gln | Ile | Gln | Ala | Ser | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Trp | Arg | Arg | Gly | Val | Thr | Pro | Ser | Ser | Ser | Ile | Pro | Ala | Met | Cys | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |

Met Lys Met Trp Arg Cys Leu Pro Val Ser Trp Arg Ala Arg Lys Lys
 340 345 350
 Met Pro Cys Leu Ser Val Met Arg Cys Leu Ile Ser Ala Arg Gly Lys
 355 360 365
 Lys Cys Cys Ala Val Arg Asn Gln Ala Gly Ile Ser Thr Thr Ala Ser
 370 375 380
 Arg Pro Ala Ile Arg Leu Phe Ser Ser Gln Gly Ala Val
 385 390 395

<210> 7680

<211> 599

<212> PRT

<213> Enterobacter cloacae

<400> 7680

Ser Tyr Gln Gln Glu Tyr Ala Met Arg Phe Thr Ile Ile Ser Thr Lys
 1 5 10 15
 Pro Gly His Gln Pro Pro Gln Ser Ser Cys Asp Phe Tyr Ala Pro Gly
 20 25 30
 Gly Thr Ile Gly Arg Gly Thr Asp Asn Asn Leu Val Leu Pro Asp Asn
 35 40 45
 Asp Arg Thr Ile Ser Arg Leu Gln Ala Ile Val His Val Asp Ala Ser
 50 55 60
 Gly Glu Cys Arg Val Thr Asn Arg Gly Ser Val Thr Arg Val Val Leu
 65 70 75 80
 Asn Asp Ile Pro Leu Glu Arg Gly Arg Gln Val Glu Leu Gln Asp Gly
 85 90 95
 Asp Ile Leu Gly Ile Asp Asp Tyr Arg Ile Glu Val Ser Glu Leu Ile
 100 105 110
 His Asp Thr Gln Pro Val Ser Arg Met Ala Ala Ser Met Gln Gln Ala
 115 120 125
 Arg Pro Ala Ala Thr Pro Ala Pro Ala Pro Gln Pro Lys Pro Ala Ser
 130 135 140
 Ala Ala Pro Arg Gly Lys Ala Glu Pro Thr Ala Val Pro Ser Glu Ile
 145 150 155 160
 Trp Asp Ser Leu Met Gln Glu Phe Ser Ile Ser Asp Ser Ile Ser Ser
 165 170 175
 Asn Arg Ala Lys Pro Gln Pro Ala Ala Ser His Asp Pro Phe Ser Gln
 180 185 190
 Pro Ala Ala Pro Glu Arg Asn Ala Glu Asp Pro Leu Ala Met Phe Asn
 195 200 205
 Asp Ala Glu Pro Ser Leu Glu Arg Lys Asn Val Asp Pro Asp Thr Leu
 210 215 220
 Phe Ser Asp Glu Ala Leu Phe Lys Lys Glu Ser Ile Phe Asp Asp Val
 225 230 235 240
 Thr Pro Ser Thr Leu Val Gln Pro Asp Glu Ser Lys Pro Ala Gln Pro
 245 250 255
 Lys Glu Glu Ala Ser Asp Glu Leu Asp Pro Leu Ala Leu Phe Gly Gly
 260 265 270
 Ser Ala Ser Ala Pro Ala Ala Arg His Asp Asp Pro Leu Gly Leu Met
 275 280 285
 Gly Gly Ala Pro Leu Thr His Pro Asp Glu Ile Val Ala Asp Lys Pro
 290 295 300
 Glu Pro Lys Pro Glu Ala Gln Ala Ala Gln Glu Glu Asp Ala Leu Ala
 305 310 315 320
 Ser Ser Pro Leu Phe Asp Pro Glu Pro Thr Glu Pro Gln Asp Ala Pro
 325 330 335
 Arg Ala Glu Glu Glu Pro Ala Arg Pro Asp Tyr Ala Gly Phe Thr Met
 340 345 350
 Pro Thr Pro Gln Ala Val Ala Arg Ser Asn Ala Gln Ala Pro Lys Gly
 355 360 365

Arg Leu Arg Ile Asp Pro Val Lys Asn Ala Ala Ser Pro Ala Ala Ser
 370 375 380
 Ala Gln Thr Gly Glu Arg Gly Glu Val Leu Gln Gly Glu Leu Leu Glu
 385 390 395 400
 Ala Leu Leu Glu Gly Met Gly Leu Ser Glu Met Gln Pro Val Pro Gln
 405 410 415
 Phe Asp Arg Glu Asn Met Arg Gln Leu Gly Gln Ile Leu Gly Met Phe
 420 425 430
 Ser Gln Gly Thr Val Ala Leu Leu Ser Ser Arg Ser Ile Leu Lys Arg
 435 440 445
 Gly Val Lys Ala Asp Met Thr Met Val Leu Asp Asp Ala Asn Asn Pro
 450 455 460
 Phe Lys Leu Leu Pro Thr Gly Lys Thr Val Leu Ile Gln Met Phe Gly
 465 470 475 480
 Thr Pro Met Pro Gly Phe Met Pro Pro Thr Lys Ser Val Arg Asp Ala
 485 490 495
 Leu Ile Asp Leu Gln Ala His Gln Leu Gly Met Ile Ser Gly Ile Arg
 500 505 510
 Ala Ile Ile Ala Ala Met Leu Gln Ser Phe Asn Pro Glu Gln Leu Glu
 515 520 525
 Glu Gln Ala Lys Gln Asn Gly Met Thr Ser Arg Leu Ala Leu Pro Gly
 530 535 540
 Ser Arg Lys Ala Ala Leu Trp Asp Tyr Phe Val Arg Ser Tyr Gly Glu
 545 550 555 560
 Thr Ala Gly Glu Ile Glu Asp Asp Phe His Thr Leu Phe Gly Glu Ala
 565 570 575
 Phe Leu His Ala Tyr Asp Met Glu Val Asn Gln Tyr Lys Asp Ser Gln
 580 585 590
 Ser Gly Ser Glu Glu Lys
 595

<210> 7681

<211> 151

<212> PRT

<213> Enterobacter cloacae

<400> 7681

Leu Pro Gln Ala Glu Arg Val Ala Val Pro Gly Pro Ala Val Pro Gly
 1 5 10 15
 Val Thr Glu Thr Gly Gln His Arg Arg Val Arg Leu Ala Gly Ala Leu
 20 25 30
 Cys Gly Val Gly Pro Tyr Gly Asn Leu Arg Gln Leu Pro Ser Gly Ala
 35 40 45
 Leu Ala Ile Gly Ala Ser Ala Asp Ser Gly Ile Asn Met Ala Gln Gly
 50 55 60
 Arg Tyr Ala Ile Phe Leu Asn Ser Gly Asp Val Phe His Glu Asn Val
 65 70 75 80
 Ala Leu Phe Ala Arg Gln Leu Ala Arg Gln Lys Glu Asp Ala Met Phe
 85 90 95
 Ile Gly Asp Ala Leu Leu Asp Phe Gly Glu Gly Lys Lys Val Leu Arg
 100 105 110
 Gly Ala Lys Pro Gly Trp Tyr Ile Tyr His Ser Leu Pro Ala Ser His
 115 120 125
 Gln Ala Ile Phe Phe Pro Arg Arg Gly Leu Lys Phe Ser Met Arg Arg
 130 135 140
 Cys Arg Ser Ile Val Phe
 145 150

<210> 7682

<211> 388

<212> PRT

<213> Enterobacter cloacae

<400> 7682

Thr Gly Gly Phe Ser Gly Ser Asn Ser Lys Pro Asn Ala Lys Ser Phe
 1 5 10 15
 Thr Val Thr Thr Tyr Phe Phe Tyr Phe Phe Pro Thr Ser Ala Val Pro
 20 25 30
 Arg Phe His Pro Ala Arg Leu Ile Cys Leu Cys Asp Gly Val Cys Leu
 35 40 45
 Pro Leu Asp Leu Phe Cys Asp Lys Gly Thr Phe Gln Asp Met Lys Lys
 50 55 60
 Ile Leu Ile Ile Val Pro Asp Gly Gly Met Leu Phe Glu Ala Ala Gly
 65 70 75 80
 Ile Ala Asp Ile Leu Met Gln Ala Asn Arg Leu His Pro Asp Gly Leu
 85 90 95
 Ala Gln Pro Arg Tyr Cys Ile Ile Ile Ala Thr Thr Gln Pro His Leu
 100 105 110
 Val Ile His Gly Gln Ser Gly Leu Asn Leu Leu Ala Asp Tyr Arg Leu
 115 120 125
 Pro Glu Leu Asp Pro Arg Glu Pro Leu Asp Thr Ile Ile Ile Thr Gly
 130 135 140
 Arg Gly Met Asn Glu Gln Glu Ser Thr Ala Val Val Asp Trp Leu His
 145 150 155 160
 Leu Ala Ala Pro His Ala Arg Arg Val Ala Ser Val Cys Gly Gly Ala
 165 170 175
 Leu Leu Leu Ala Gln Ala Gly Leu Leu Asp Gly Arg Arg Ala Thr Thr
 180 185 190
 His Trp Arg Leu Leu Glu Thr Leu Lys Thr Arg Tyr Pro Ala Val Asn
 195 200 205
 Val Glu Gly Gly Pro Leu Tyr Ile Gln Asp Gly Pro Val Trp Thr Ser
 210 215 220
 Gly Gly Val Ser Ser Gly Phe Asp Leu Thr Leu Ala Leu Val Glu Asp
 225 230 235 240
 Asp Tyr Gly Phe Thr Leu Ala Arg Asn Val Ala Gln Asp Met Val Met
 245 250 255
 Tyr Leu Arg Arg Pro Gly Gly Gln Leu Gln Phe Ser Arg Tyr Lys Leu
 260 265 270
 Glu Gln Ser Gly Ala Thr Gly Pro Val Ser Glu Leu Gln Ser Trp Ile
 275 280 285
 Leu Gln Asn Leu Thr Ala Asp Leu Cys Val Glu Arg Leu Ala Glu Arg
 290 295 300
 Val Ala Met Ser Pro Arg Asn Phe Thr Arg Val Phe Thr Arg Asp Val
 305 310 315 320
 Gly Val Pro Pro Ala Arg Tyr Val Thr Glu Ala Arg Leu Ala Ala Ala
 325 330 335
 Arg Gln Leu Leu Glu Gln Thr Ser Tyr Pro Leu Glu Val Ile Ala Glu
 340 345 350
 Lys Ser Gly Phe Gly Thr Ser Ile Asn Leu Arg Arg Val Phe Glu Lys
 355 360 365
 Gln Leu His Leu Thr Pro Gly Glu Tyr Arg Gln Arg Phe His Cys Arg
 370 375 380
 Arg Met Ala
 385

<210> 7683

<211> 363

<212> PRT

<213> Enterobacter cloacae

<400> 7683

Ser Asp Pro Phe Leu Ser Phe Thr Pro Ser Asp Leu Thr Pro Lys Val

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Thr | Pro | Asp | Asn | Thr | Asp | Lys | Glu | Cys | Ile | Met | Val | Lys | Val |
| | | | 20 | | | | | 25 | | | | 30 | |
| Asn | Gly | Phe | Gly | Arg | Ile | Gly | Arg | Asn | Val | Leu | Arg | Ala | Leu |
| | | 35 | | | | 40 | | | | | 45 | | |
| Asn | Pro | Asp | Leu | Gln | Ile | Val | Ala | Ile | Asn | Asp | Leu | Thr | Asp |
| | | 50 | | | | 55 | | | | 60 | | | |
| Thr | Leu | Ala | His | Leu | Leu | Lys | Tyr | Asp | Ser | Leu | Leu | Gly | Thr |
| 65 | | | | | 70 | | | | | 75 | | | 80 |
| Val | Pro | Val | Glu | Ala | Ala | Asp | Gly | Ala | Leu | Gln | Val | Asp | Gly |
| | | | | 85 | | | | 90 | | | | | 95 |
| Ile | Thr | Val | Phe | Ser | Glu | Arg | Asp | Pro | Ala | Asn | Ile | Ala | Trp |
| | | 100 | | | | | | 105 | | | | 110 | |
| Ala | Gly | Val | Glu | Val | Val | Ile | Glu | Ala | Thr | Gly | Phe | Phe | Thr |
| | | 115 | | | | | 120 | | | | | 125 | |
| Glu | Lys | Ala | Ala | Val | His | Ile | Thr | Ser | Gly | Gly | Ala | Lys | Arg |
| | | 130 | | | | 135 | | | | | 140 | | |
| Ile | Ser | Ala | Pro | Ala | Lys | Asn | Asp | Asp | Leu | Thr | Val | Val | Met |
| 145 | | | | | 150 | | | | | 155 | | | 160 |
| Asn | His | Thr | Leu | Tyr | Asp | Pro | Ala | Gln | His | Phe | Val | Val | Ser |
| | | | | 165 | | | | 170 | | | | | 175 |
| Ser | Cys | Thr | Thr | Asn | Gly | Leu | Ala | Pro | Ala | Ala | Gln | Val | Leu |
| | | | 180 | | | | | 185 | | | | 190 | |
| Gln | Phe | Gly | Ile | Glu | His | Gly | Leu | Met | Asn | Thr | Thr | His | Ala |
| | | 195 | | | | | 200 | | | | | 205 | |
| Asn | Ser | Gln | Ala | Leu | His | Asp | Gln | Pro | Glu | Lys | Asp | Leu | Arg |
| | | 210 | | | | 215 | | | | | 220 | | |
| Arg | Ala | Ala | Ala | Leu | Ser | Ile | Val | Pro | Tyr | Ser | Ser | Gly | Ala |
| 225 | | | | | 230 | | | | | 235 | | | 240 |
| Ala | Leu | Gly | Lys | Val | Ile | Pro | Glu | Leu | Asp | Gly | Lys | Leu | Thr |
| | | | | 245 | | | | | 250 | | | | 255 |
| Ser | Leu | Arg | Val | Pro | Val | Pro | Val | Val | Ser | Ile | Val | Asp | Leu |
| | | | 260 | | | | | 265 | | | | 270 | Val |
| Thr | Leu | Ser | Arg | Asn | Val | Thr | Ala | Glu | Glu | Val | Asn | Asp | Ala |
| | | 275 | | | | | 280 | | | | | 285 | Phe |
| Gln | Ala | Ala | Ile | Ser | Gly | Pro | Leu | Lys | Gly | Ile | Leu | Gly | Tyr |
| | | 290 | | | | 295 | | | | | 300 | | Ser |
| Glu | Pro | Leu | Val | Ser | Arg | Asp | Tyr | Gln | Gly | Asp | Pro | Arg | Ser |
| 305 | | | | | 310 | | | | | 315 | | | Ile |
| Ile | Asp | Gly | Leu | Ser | Thr | Leu | Val | Ile | Gly | Gly | Asn | Met | Val |
| | | | | 325 | | | | | 330 | | | | Lys |
| Leu | Ser | Trp | Tyr | Asp | Asn | Glu | Trp | Gly | Phe | Ser | Asn | Arg | Leu |
| | | | 340 | | | | | 345 | | | | | 350 |
| Leu | Ala | Val | Leu | Met | Asp | Lys | Lys | Gly | Leu | | | | |
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<211> 575

<212> PRT

<213> Enterobacter cloacae

<400> 7684

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| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Arg | Pro | Arg | Ala | Arg | Arg | Pro | Ala | Phe | Leu | Pro | Leu | Ala | Leu | Ala | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Leu | Leu | Gly | Val | Thr | Ala | Phe | Gly | Tyr | Ala | Glu | Asp | Gln | Pro | Thr |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Ser | Gln | Gln | Ser | Ser | Pro | Asp | Ile | Leu | Leu | Gly | Pro | Leu | Phe | Asn | Asp |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Val | Gln | Ser | Ala | Lys | Leu | Phe | Pro | Asp | Gln | Lys | Thr | Phe | Ala | Asp | Ala |

| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Pro | Lys | Ser | Asp 85 | Pro | Leu | Met | Ile | Leu 90 | Ala | Asp | Tyr | Arg | Met 95 | Gln |
| His | Thr | Gln | Ser 100 | Gly | Phe | Asp | Leu | Arg 105 | His | Phe | Val | Glu | Met 110 | Asn | Phe |
| Ile | Leu | Pro 115 | Lys | Glu | Gly | Glu | Lys 120 | Tyr | Val | Pro | Pro | Glu | Gly | Gln | Ser |
| Leu | Arg 130 | Glu | His | Ile | Asp | Asp 135 | Leu | Trp | Pro | Val | Leu | Thr | Arg | Thr | Thr |
| Asp 145 | Lys | Ala | Asn | Lys | Trp 150 | Asp | Ser | Leu | Leu | Pro 155 | Leu | Pro | Lys | Pro | Tyr 160 |
| Val | Val | Pro | Gly 165 | Gly | Arg | Phe | Arg | Glu | Val 170 | Tyr | Tyr | Trp | Asp | Ser 175 | Tyr |
| Phe | Thr | Met 180 | Leu | Gly | Leu | Ala | Glu | Ser 185 | Gly | His | Trp | Asp | Lys 190 | Ile | Gly |
| Asp | Met 195 | Val | Asp | Asn | Phe | Ala | Tyr 200 | Glu | Leu | Asp | Thr | Trp 205 | Gly | His | Ile |
| Pro | Asn 210 | Gly | Asn | Arg | Thr | Tyr 215 | Tyr | Leu | Ser | Arg | Ser 220 | Gln | Pro | Pro | Phe |
| Phe 225 | Ser | Leu | Met | Val 230 | Glu | Leu | Leu | Ala | Thr | His 235 | Asp | Ser | Asp | Ala | Leu 240 |
| Lys | Lys | Tyr | Arg 245 | Pro | Gln | Met | Glu | Lys | Glu 250 | Tyr | Ala | Tyr | Trp | Met 255 | Glu |
| Gly | Ala | Asp 260 | Gly | Leu | Gln | Pro | Gly | Gln 265 | Ala | Asn | Lys | Arg | Val 270 | Val | Lys |
| Leu | Asp 275 | Asp | Gly | Ser | Ile | Leu | Asn 280 | Arg | Tyr | Trp | Asp 285 | Asp | Arg | Asp | Thr |
| Pro | Arg 290 | Pro | Glu | Ser | Trp | Leu 295 | Asp | Asp | Val | Thr | Thr 300 | Ala | Lys | Asn | Asn |
| Pro 305 | Asn | Arg | Pro | Ala 310 | Thr | Glu | Ile | Tyr | Arg | Asp 315 | Leu | Arg | Ser | Ala | Ala 320 |
| Ala | Ser | Gly | Trp 325 | Asp | Phe | Ser | Ser | Arg | Trp 330 | Met | Asp | Asp | Pro | Gln 335 | Lys |
| Leu | Gly | Thr 340 | Ile | Arg | Thr | Thr | Ser | Ile 345 | Val | Pro | Val | Asp 350 | Leu | Asn | Ala |
| Leu | Met 355 | Phe | Lys | Met | Glu | Lys | Leu 360 | Leu | Ala | Arg | Ala | Ser 365 | Gln | Glu | Asp |
| Gly | Asp 370 | Thr | Ala | Ser | Ala | Ser 375 | Lys | Tyr | Asp | Ala | Leu 380 | Ala | Ser | Ala | Arg |
| Gln 385 | Lys | Ala | Met | Glu 390 | Ser | His | Leu | Trp | Asn | Asp 395 | Lys | Glu | Gly | Trp | Tyr 400 |
| Ala | Asp | Tyr | Asp 405 | Leu | Lys | Thr | Arg | Lys | Val 410 | Arg | Asn | Gln | Leu | Thr 415 | Ala |
| Ala | Ala | Leu 420 | Phe | Pro | Leu | Tyr | Val | Lys 425 | Ala | Ala | Ser | Gln | Asp 430 | Arg | Ala |
| Asp | Lys 435 | Val | Ala | Ala | Ala | Ala | Ser 440 | Ser | Arg | Leu | Leu | Lys 445 | Pro | Gly | Gly |
| Ile | Ser 450 | Thr | Thr | Thr | Ile | Asn 455 | Ser | Gly | Gln | Gln | Trp 460 | Asp | Ala | Pro | Asn |
| Gly 465 | Trp | Ala | Pro | Leu 470 | Gln | Trp | Val | Ala | Val | Glu 475 | Gly | Leu | Gln | Asn | Tyr 480 |
| Gly | Gln | Gln | Lys 485 | Val | Ala | Met | Asp | Val | Thr 490 | Trp | Arg | Phe | Leu | Lys 495 | Asn |
| Val | Gln | His 500 | Thr | Tyr | Asp | Arg | Glu | Lys 505 | Lys | Leu | Val | Glu | Lys 510 | Tyr | Asp |
| Val | Ser 515 | Ser | Thr | Gly | Thr | Gly | Gly 520 | Gly | Gly | Gly | Glu | Tyr 525 | Pro | Leu | Gln |
| Asp | Gly 530 | Phe | Gly | Trp | Ser | Asn 535 | Gly | Val | Thr | Leu | Arg 540 | Met | Leu | Asp | Met |
| Val 545 | Cys | Pro | Lys | Glu 550 | Lys | Pro | Cys | Asp | Thr | Val 555 | Pro | Glu | Asn | Gln | Pro 560 |

Ala Ala Asn Asp Asp Val Ala Pro Ala Lys Gln Ala Ala Gln
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<210> 7685

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<212> PRT

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| Ser | Thr | Ser | Tyr | Met | Ser | Glu | Tyr | Lys | Ile | Arg | Gly | Phe | Asn | Val | Asp |
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| Gln | Glu | Phe | Tyr | Asn | Gly | Leu | Gln | Leu | Pro | Tyr | Asn | Val | Thr | Gly | Asn |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Thr | Lys | Ala | Arg | Ile | Asp | Pro | Leu | Leu | Ile | Glu | Ser | Val | Asp | Ile | Leu |
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| Lys | Gly | Pro | Ser | Ser | Val | Leu | Tyr | Gly | Gly | Gly | Ser | Pro | Gly | Gly | Leu |
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| Val | Asn | Ile | Gln | Ser | Lys | Lys | Pro | Gln | Lys | Glu | Ala | Lys | Thr | Glu | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Phe | Asn | Thr | Gly | Asn | Arg | Asn | Leu | Lys | Glu | Gly | Tyr | Leu | Asp | Ser |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Thr | Gly | Gln | Ile | Ala | Asn | Ser | Asp | Trp | Asn | Tyr | Arg | Leu | Leu | Gly | Lys |
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| Ala | Thr | Glu | Ser | Asp | Glu | Gln | Ala | His | Thr | Thr | Arg | Tyr | Glu | Asn | Tyr |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Leu | Val | Ala | Pro | Ser | Val | Thr | Trp | Gln | Pro | Asp | Asp | Lys | Thr | Arg | Leu |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Thr | Ile | Asp | Ala | Leu | Ala | Gln | Asn | Thr | Pro | Ser | Leu | Thr | Pro | Ser | Asp |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Pro | Met | Pro | Leu | Ser | Tyr | Leu | Arg | Ser | Lys | Tyr | Ala | Asp | Arg | Arg | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Tyr | Ala | Gly | Asp | Glu | Trp | Ser | Gly | Phe | Lys | Gln | Arg | Gln | Trp | Met | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Gly | Tyr | Ser | Phe | Glu | His | Glu | Phe | Asp | Ser | Gly | Trp | Gly | Phe | Asn | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Ala | Arg | Tyr | Phe | Asp | Val | Asp | Thr | His | Gln | Arg | Ser | Ala | Tyr | Ser |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Thr | Gly | Thr | Gly | Ser | Glu | Val | Tyr | Gln | Leu | Asn | Arg | Phe | Ala | Tyr | Thr |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Thr | Asp | Glu | Asp | Leu | Gln | Ser | Phe | Asn | Ile | Asp | Asn | Gln | Val | Thr | Arg |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Thr | Val | Ala | Leu | Gly | Asp | Trp | Lys | His | His | Leu | Leu | Ala | Gly | Phe | Asp |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Tyr | Gln | Lys | Leu | Asn | Ser | His | Phe | His | Tyr | Arg | Tyr | Ala | Ser | Ser | Thr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Gly | Ile | Asp | Met | Arg | His | Pro | Asp | His | Ser | Gln | Ile | Asp | Asn | Asp |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Ala | Leu | Gly | Leu | Glu | Thr | Ala | Gln | Lys | Asn | Arg | Leu | Ser | Tyr | Gln | Gln |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Asn | Gly | Tyr | Tyr | Leu | Gln | Asp | Gln | Ile | Ala | Phe | Gly | Gly | Leu | Asn | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Ala | Ser | Leu | Arg | Tyr | Asp | Asp | Tyr | Arg | Ser | Val | Thr | Thr | Asn | Tyr |
| | 355 | | | | | 360 | | | | | | 365 | | | |
| Leu | Gln | Asn | Gly | Asp | Lys | Ala | Trp | Val | Ser | Gln | Asp | Arg | Leu | Thr | Lys |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Arg | Leu | Gly | Ala | Leu | Tyr | Ala | Phe | Asp | Asn | Gly | Leu | Ser | Pro | Phe | Ile |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ser | Tyr | Ser | Glu | Gly | Phe | Ala | Pro | Val | Ser | Pro | Gln | Gly | Thr | Leu | Thr |
| | | | | 405 | | | | | 410 | | | | | 415 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Lys | Asp | Val | Lys | Pro | Thr | Thr | Ser | Lys | Gln | Val | Glu | Gly | Gly | Val |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Lys | Tyr | Leu | Leu | Ala | Glu | Tyr | Ala | Thr | Thr | Phe | Thr | Ala | Ser | Val | Phe |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asn | Ile | Arg | Gln | Lys | Asn | Val | Val | Thr | Ser | Asp | Pro | Gly | Phe | Leu | Asn |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Tyr | Arg | Gln | Thr | Gly | Glu | Val | Glu | Ser | Lys | Gly | Ala | Glu | Leu | Ser | Ala |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Met | Ser | Arg | Pro | Thr | Asp | Asn | Leu | Thr | Leu | Ile | Ala | Asn | Tyr | Ala | Tyr |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Thr | His | Ala | Ile | Asn | Thr | Glu | Asp | Asp | Lys | Tyr | Gln | Gly | Lys | Gly | Pro |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Thr | Gln | Val | Pro | Glu | Asn | Ala | Phe | Asn | Leu | Trp | Gly | Asp | Tyr | Thr | Phe |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Asp | Ser | Thr | Pro | Leu | Lys | Arg | Gly | Asn | Ala | Gly | Gly | Arg | Arg | Thr | Leu |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| His | Arg | Ala | Asp | Gly | Asp | Leu | Ala | Ser | Gln | Arg | Arg | Arg | Gln | Ala | Gly |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
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<212> PRT

<213> Enterobacter cloacae

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Thr | Thr | Leu | Leu | Ser | Ile | Leu | Thr | Asn | Arg | Ile | Leu | Trp | Ser | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Gly | Val | Thr | Ala | Leu | Ala | Ala | Val | Ile | Trp | Met | Ile | Gly | Pro | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ser | Ile | Val | Asp | Thr | Arg | Pro | Leu | Glu | Ser | Glu | Gln | Asn | Arg | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ile | Ser | Ile | Ala | Val | Val | Tyr | Leu | Ile | Trp | Ala | Gln | Ser | His | Ile | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Arg | Leu | Tyr | Asn | Ala | Trp | Leu | Asn | Arg | Lys | Leu | Met | Asp | Lys | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Glu | Asn | Thr | Ser | Pro | Glu | Ala | Ala | Asp | Pro | Gln | Lys | Arg | Leu | |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Asn | Ser | Glu | Glu | Gln | Ile | Leu | Ala | Gly | Arg | Phe | Asp | Glu | Ala | Ala | Gln |
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| Met | Leu | Lys | Lys | Ala | His | Phe | Ser | Lys | Ala | Gly | His | Gly | Ala | Gln | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Gln | Arg | Phe | Ser | Thr | Gln | Tyr | Leu | Tyr | Gln | Leu | Pro | Trp | Tyr | Val |
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| Ile | Ile | Gly | Ala | Pro | Gly | Ser | Gly | Lys | Thr | Thr | Ala | Leu | Ala | Asn | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Leu | Gln | Phe | Pro | Leu | Ala | Asp | Arg | Phe | Gly | Lys | Thr | Ala | Leu | Arg |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Gly | Ile | Gly | Gly | Thr | Arg | Asn | Cys | Asp | Trp | Trp | Phe | Thr | Asn | Glu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Leu | Leu | Asp | Thr | Ala | Gly | Arg | Tyr | Thr | Thr | Gln | Glu | Ser | Glu | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Gln | Asp | Ala | Gly | Glu | Trp | Leu | Glu | Phe | Ile | Asn | Leu | Leu | Arg | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Tyr | Arg | Arg | Arg | Gln | Pro | Ile | Asn | Gly | Val | Ile | Ile | Thr | Ile | Ser | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Asp | Leu | Leu | Ser | Gln | Ser | Ala | Glu | Ala | Ser | Arg | Gln | Gln | Ala | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Leu | Arg | Gln | Arg | Leu | Ser | Glu | Leu | His | Glu | Gln | Leu | Gly | Ile | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Pro | Val | Tyr | Val | Met | Val | Thr | Lys | Ala | Asp | Leu | Leu | Lys | Gly | Phe |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Arg | Ala | Trp | Phe | Ala | Asp | Tyr | Asp | Lys | Ala | Gln | Arg | Asp | Gln | Ile | Trp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Phe | Thr | Leu | Pro | Trp | Glu | Gln | Thr | Lys | His | Ala | Asp | Tyr | Asp | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Met | Gly | Asn | Phe | His | Gln | Glu | Phe | Ser | Leu | Leu | Gln | Gln | Arg | Leu | Asp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Gly | Leu | Pro | Glu | Thr | Met | Leu | Lys | Glu | His | Asp | Ala | Lys | Thr | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Glu | Ala | Tyr | Leu | Phe | Pro | Gln | Glu | Phe | Ala | Ala | Leu | Arg | Pro | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Ala | Asp | Tyr | Leu | Ser | Thr | Val | Phe | Ala | Arg | Ser | Asn | Phe | Glu | Thr |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Phe | Ser | Pro | Arg | Gly | Ile | Tyr | Phe | Ala | Ser | Gly | Thr | Gln | Glu | Gly |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Met | Pro | Phe | Asp | Arg | Val | Met | Gly | Glu | Leu | Asn | Arg | Ala | Leu | Ser | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Pro | Glu | Gly | Glu | Glu | Ser | Thr | Arg | Trp | Asp | Ser | Val | Ser | Lys | Glu | Ala |
| | | 435 | | | | | | 440 | | | | | 445 | | |
| Pro | Ile | Pro | Gly | Ala | Lys | Gly | Gln | Ser | Phe | Phe | Ile | Lys | Asn | Leu | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Gln | Asn | Val | Ile | Phe | Gln | Glu | Ala | Gly | Ile | Ala | Gly | Glu | Asn | Arg | Trp |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Trp | Glu | Leu | Arg | Asn | Arg | Ala | Val | Met | Trp | Ser | Gly | Tyr | Ala | Ala | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Leu | Ala | Leu | Leu | Val | Ile | Leu | Gly | Gly | Leu | Trp | Leu | Thr | Ser | Tyr | Ala |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Lys | Asn | Lys | Ala | Tyr | Leu | Glu | Glu | Val | Asp | Ala | Lys | Val | Pro | Met | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Glu | Gln | Gln | Ser | Lys | Ala | Leu | Gln | Asn | Gln | Pro | Gln | Arg | Asp | Leu | Phe |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Ala | Leu | Leu | Pro | Leu | Leu | Asn | Ser | Leu | Val | Asp | Leu | Pro | Lys | Ser | Asp |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ala | Phe | Asp | Val | Asn | Asp | Pro | Pro | Val | Ser | Arg | Arg | Met | Gly | Leu | Tyr |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Arg | Gly | Asp | Asp | Val | Ser | Asp | Ala | Ser | Gln | Ser | Leu | Tyr | Gln | Lys | Ala |
| | | | | 580 | | | | | 585 | | | | | 590 | |
| Leu | Asp | Gln | Met | Leu | Leu | Pro | Ala | Val | Ala | Met | His | Ile | Thr | Thr | Trp |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Leu | Arg | Asn | Asp | Asn | Gly | Ser | Asp | Val | Glu | Tyr | Ser | Tyr | Glu | Ala | Leu |
| | 610 | | | | | 615 | | | | | | 620 | | | |
| Lys | Ala | Tyr | Gln | Met | Leu | Tyr | Gln | Pro | Lys | His | Tyr | Asp | Gly | Lys | Phe |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Leu | His | Ser | Trp | Val | Met | Leu | Asn | Leu | Gln | Arg | Asn | Leu | Pro | Gln | Asn |
| | | | | 645 | | | | | | 650 | | | | 655 | |
| Val | Thr | Gln | Ala | Gln | Leu | Gln | Glu | Leu | Glu | Trp | His | Leu | Thr | Gln | Leu |
| | | | 660 | | | | | 665 | | | | | | 670 | |
| Leu | Glu | Pro | Lys | Ile | Gln | Ala | Ser | Pro | Tyr | Ala | Gln | Asp | Glu | Asp | Leu |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Val | Ala | Arg | Glu | Arg | Ala | Leu | Ile | Asn | Gln | Gln | Pro | Leu | Ser | Thr | Arg |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Val | Tyr | Gly | Arg | Leu | Lys | Arg | Leu | Leu | Glu | His | Asp | Glu | Asn | Leu | Lys |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Pro | Val | Ser | Leu | Ser | Asp | Leu | Gly | Gly | Pro | Gln | Ser | Glu | Leu | Val | Phe |
| | | | | 725 | | | | | | 730 | | | | 735 | |
| Ser | Arg | Lys | Ser | Gly | Lys | Pro | Val | Ser | Glu | Gly | Val | Pro | Gly | Leu | Tyr |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Thr | Pro | Asp | Gly | Tyr | Trp | Lys | Ser | Phe | Asn | Asp | Gln | Ile | Asp | Ser | Val |

| | | | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| | | 755 | | | | | 760 | | | | 765 | | | | |
| Thr | Thr | Ala | Leu | His | Glu | Asp | Asp | Ala | Trp | Val | Leu | Gly | Ala | Ala | Thr |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Ala | Gln | Glu | Asp | Lys | Gln | Gln | Ile | Asp | Asn | Ala | Val | Arg | Gln | Leu | Tyr |
| 785 | | | | | 790 | | | | | | 795 | | | | 800 |
| Met | Arg | Asp | Phe | Ile | Val | Asn | Trp | Asp | Arg | Phe | Leu | Ala | Asp | Ile | Gln |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Leu | Asn | Asn | Ser | Ala | Asp | Leu | Ser | Gln | Arg | Ile | Asn | Thr | Ala | Arg | Leu |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Leu | Ser | Gly | Thr | Asn | Ser | Pro | Leu | Arg | Arg | Leu | Val | Leu | Asn | Leu | Gly |
| | | 835 | | | | | 840 | | | | | 845 | | | |
| Lys | Val | Leu | Thr | Leu | Ser | Arg | Thr | Ala | Pro | Ala | Pro | Glu | Asp | Ala | Gln |
| | 850 | | | | | 855 | | | | | 860 | | | | |
| Lys | Ala | Glu | Asp | Gln | Ser | Asn | Arg | Ala | Thr | Arg | Thr | Leu | Glu | Ala | Leu |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 |
| Phe | Ser | Asn | Gly | Asp | Asn | Ala | Pro | Thr | Gln | Gly | Ala | Val | Val | Thr | Gln |
| | | | 885 | | | | | | 890 | | | | | 895 | |
| Ala | Pro | Glu | Gln | Leu | Val | Thr | Asp | His | Tyr | Ala | Pro | Met | Ile | Glu | Leu |
| | | | 900 | | | | | 905 | | | | | 910 | | |
| Ala | Gln | Pro | Leu | Glu | Lys | Gly | Gly | Lys | Thr | Ile | Val | Phe | Asp | Asp | Phe |
| | 915 | | | | | | 920 | | | | | 925 | | | |
| Leu | Lys | Gln | Val | Asp | Glu | Leu | Tyr | Arg | Tyr | Leu | Thr | Ala | Val | Gln | Asp |
| | 930 | | | | | 935 | | | | | 940 | | | | |
| Ala | Ala | Asn | Ser | Gly | Met | Pro | Ala | Pro | Gly | Gly | Asp | Ala | Ile | Ser | Arg |
| 945 | | | | | 950 | | | | | 955 | | | | | 960 |
| Leu | Gln | Ala | Ser | Ala | Gly | Arg | Leu | Pro | Gly | Gly | Leu | Gln | Thr | Met | Phe |
| | | | | 965 | | | | | 970 | | | | | 975 | |
| Ser | Asn | Met | Ala | Val | Gly | Ala | Ser | Ser | Asp | Thr | Gln | Arg | Arg | Asp | Leu |
| | | 980 | | | | | | 985 | | | | | 990 | | |
| Glu | Asn | Val | Arg | Lys | Arg | Ile | Asn | Val | Glu | Val | Gly | Gly | Phe | Cys | Arg |
| | 995 | | | | | | 1000 | | | | | 1005 | | | |
| Gln | Ala | Ile | Ala | Gly | Arg | Tyr | Pro | Leu | Val | Arg | Ser | Ala | Ser | Thr | Glu |
| | 1010 | | | | | 1015 | | | | | 1020 | | | | |
| Val | Thr | Pro | Asp | Asp | Leu | Ala | Arg | Met | Phe | Ala | Pro | Gly | Thr | Gly | Leu |
| 1025 | | | | | 1030 | | | | | 1035 | | | | | 1040 |
| Met | Asp | Thr | Phe | Phe | Arg | Asp | Asn | Leu | Thr | Asn | Lys | Val | Asp | Thr | Thr |
| | | | | 1045 | | | | | 1050 | | | | | 1055 | |
| Gln | Ala | Asn | Trp | Arg | Phe | Met | Pro | Gly | Ile | Asp | Gly | Lys | Thr | Leu | Pro |
| | | 1060 | | | | | 1065 | | | | | 1070 | | | |
| Gly | Ser | Glu | Gly | Leu | Leu | Arg | Pro | Phe | Gln | Gln | Ala | Gln | Ser | Val | Arg |
| | | 1075 | | | | | 1080 | | | | 1085 | | | | |
| Asp | Ala | Phe | Phe | Ala | Asn | Gly | Ala | Thr | Thr | Pro | Ser | Phe | Lys | Val | Thr |
| | 1090 | | | | | 1095 | | | | | 1100 | | | | |
| Val | Arg | Thr | Val | Arg | Met | Asp | Asn | Thr | Ile | Leu | Asn | Leu | Thr | Leu | Asp |
| 1105 | | | | | 1110 | | | | | 1115 | | | | | 1120 |
| Val | Asp | Gly | Gln | Leu | Leu | Arg | Tyr | Ser | His | Gly | Pro | Gln | Ala | Val | Gln |
| | | | | 1125 | | | | | 1130 | | | | | 1135 | |
| Ile | Met | Thr | Trp | Pro | Gly | Pro | Gly | Gly | Thr | Asn | Gln | Val | Arg | Met | Gln |
| | | | 1140 | | | | 1145 | | | | | | 1150 | | |
| Leu | Gly | Leu | Ala | Asn | Gly | Ser | Thr | Ala | Thr | Leu | Val | Thr | Asn | Gly | Ser |
| | | 1155 | | | | | 1160 | | | | | 1165 | | | |
| Trp | Ala | Leu | Asn | Arg | Phe | Phe | Asp | Lys | Ala | Arg | Thr | Ser | Pro | Gly | Ala |
| | 1170 | | | | | 1175 | | | | | 1180 | | | | |
| Gly | Ser | Leu | Ser | Arg | Gln | Ala | Thr | Phe | Asn | Val | Asp | Gly | His | Gln | Val |
| 1185 | | | | | 1190 | | | | | 1195 | | | | | 1200 |
| Thr | Leu | Glu | Phe | Ala | Pro | Asn | Ser | Ile | Arg | Asn | Pro | Phe | Gln | Leu | Pro |
| | | | | 1205 | | | | | 1210 | | | | | 1215 | |
| Arg | Phe | Ser | Cys | Pro | | | | | | | | | | | |
| | | | 1220 | | | | | | | | | | | | |

<210> 7687

<211> 90
 <212> PRT
 <213> Enterobacter cloacae

<400> 7687

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Val | Thr | Leu | Gly | Gly | Gly | Ala | Arg | Tyr | Thr | Gly | Pro | Met | Glu |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ile | Ser | Pro | Ala | Asn | Asp | Ala | Gly | Lys | Leu | Gly | Gly | Thr | Thr | Gln | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Leu | Ala | Ala | Ser | Tyr | Arg | Met | Gly | Glu | Leu | Ala | Pro | Ser | Leu | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Leu | Thr | Leu | Lys | Ala | Ser | Ala | Gln | Asn | Val | Thr | Asn | Lys | Glu | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Thr | Cys | Tyr | Asp | Ala | Thr | Asn | Cys | Trp | Ile | Gly | Arg | Asp | Arg | Thr |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Phe | Gln | Val | Gly | Ala | Ser | Tyr | Ser | Phe | | | | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 7688
 <211> 423
 <212> PRT
 <213> Enterobacter cloacae

<400> 7688

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Asp | Arg | Ile | Ile | Lys | Arg | Ala | Leu | Asn | Met | Gln | Glu | Arg | Gln | Asp |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Thr | Gly | Ser | Asp | Ala | Val | Phe | Thr | Gly | Ala | Ser | Gly | Asn | Asn | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ala | Ala | Ala | Asn | Pro | Leu | Leu | Asn | Ala | Ile | Pro | Gln | Ile | Arg | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Val | Ser | His | Asp | Asp | Gln | Val | Gly | Leu | Arg | Gln | Arg | Leu | Ile | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Ile | Arg | Arg | Phe | Glu | Val | Arg | Cys | Gln | Gln | Ala | Gly | Leu | Pro | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Glu | Val | Ile | Val | Gly | Ala | Arg | Tyr | Cys | Leu | Cys | Thr | Ala | Leu | Asp | Glu |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ala | Ala | Ala | Leu | Thr | Pro | Trp | Gly | Ser | Ser | Gly | Val | Trp | Ser | Ser | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Leu | Leu | Val | Thr | Phe | His | Asn | Glu | Thr | Trp | Gly | Gly | Glu | Lys | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Gln | Leu | Leu | Ala | Arg | Leu | Ser | Gln | Asn | Pro | Arg | Glu | His | Ile | Leu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Glu | Met | Ile | Asn | Tyr | Cys | Leu | Leu | Leu | Gly | Phe | Glu | Gly | Arg |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Tyr | Arg | Val | Leu | Asp | Asn | Gly | Arg | Thr | Gln | Leu | Glu | Thr | Ile | Lys | Gln |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Arg | Leu | Trp | Gln | Met | Ile | Arg | Gly | Val | Arg | Gly | Ser | Tyr | Pro | Pro | Pro |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Ser | Pro | His | Pro | Glu | Asp | Arg | Pro | Val | Leu | Arg | Lys | Leu | Trp | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Met | Ile | Pro | Leu | Trp | Ala | Cys | Val | Ala | Leu | Val | Gly | Phe | Ile | Ala |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Cys | Leu | Phe | Tyr | Ile | Val | Leu | Asn | Trp | Arg | Leu | Gly | Asp | Asn | Thr | Ser |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Pro | Val | Leu | Ala | Lys | Ile | Tyr | Gln | Ser | Gln | Leu | Pro | Glu | Thr | Thr | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Gln | Pro | Ala | Arg | Gln | Leu | Pro | Ala | Val | Leu | Asn | Leu | Arg | Gly | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Lys | Pro | Glu | Ile | Asp | Ala | Gly | Leu | Val | Ala | Val | Lys | Asp | Glu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Arg | Ser | Val | Val | Ile | Leu | Lys | Gly | Asp | Gly | Leu | Phe | Ala | Ser | Ala |

| | | |
|-------------------------|---------------------|---------------------|
| 290 | 295 | 300 |
| Ser Thr Val Val Arg Asp | Arg Tyr Glu Pro Val | Ile Asp Arg Ile Ala |
| 305 | 310 | 315 |
| Gln Ala Met Asn Asn Val | Ser Gly Lys Ile Leu | Val Val Gly Tyr Ser |
| | 325 | 330 |
| Asp Asn Val Pro Ile Arg | Ser Ala Arg Phe Ala | Ser Asn Tyr Glu Leu |
| | 340 | 345 |
| Ser Leu Glu Arg Ala Arg | Ser Val Gln Lys Gln | Leu Gln Gly Ser Leu |
| | 355 | 360 |
| Ser Gln Pro Glu Arg Val | Lys Ala Glu Gly Arg | Gly Glu Ile Asn Pro |
| | 370 | 375 |
| Val Ala Pro Asn Thr Thr | Pro Glu Asn Arg Ala | Arg Asn Arg Arg Val |
| 385 | 390 | 395 |
| Glu Ile Thr Leu Leu Val | Ser Pro Asp Asn Thr | Gln Ala Glu Leu Asn |
| | 405 | 410 |
| Gly Leu Pro Gln Gly Asn | | |
| | 420 | |

<210> 7689

<211> 344

<212> PRT

<213> Enterobacter cloacae

<400> 7689

| | |
|---|--|
| Ser Arg Arg Lys Lys Ser Val Trp Trp Ile Thr Ala Cys Met Thr Ala | |
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| Ile Val Asn Phe Ala Pro Leu Arg Ala Ile Pro Val Lys Gly Val Asn | |
| 20 25 30 | |
| Arg Trp Ser Ser Thr Val Arg Thr Met Arg Ser Phe Leu Lys Arg Thr | |
| 35 40 45 | |
| Leu Cys Ala Gln Ser Arg Ser Thr Pro Leu Leu Asn Phe Ser Thr Gly | |
| 50 55 60 | |
| Ile Thr Asp Tyr Cys Phe Pro Pro Glu Val Glu Ile Pro Met Tyr Gln | |
| 65 70 75 80 | |
| Val Val Ala Ser Asp Leu Asp Gly Thr Leu Leu Ser Pro Asp His Thr | |
| 85 90 95 | |
| Leu Ser Pro Tyr Ala Lys Glu Thr Leu Lys Leu Leu Thr Ala Arg Gly | |
| 100 105 110 | |
| Val Asn Phe Val Phe Ala Thr Gly Arg His His Val Asp Val Gly Gln | |
| 115 120 125 | |
| Ile Arg Asp Asn Leu Glu Ile Lys Ser Tyr Met Ile Thr Ser Asn Gly | |
| 130 135 140 | |
| Ala Arg Val His Asp Thr Asp Gly Asn Leu Ile Phe Thr His Asn Leu | |
| 145 150 155 160 | |
| Asp Arg Asp Ile Ala Thr Asp Leu Phe Gly Ile Val His Asn Asn Pro | |
| 165 170 175 | |
| Asp Ile Val Thr Asn Val Tyr Arg Asp Asp Glu Trp Phe Met Asn Arg | |
| 180 185 190 | |
| His Arg Pro Glu Glu Met Arg Phe Phe Lys Glu Ala Val Phe Gln Tyr | |
| 195 200 205 | |
| Ser Leu Tyr Glu Pro Gly Leu Leu Glu Pro Glu Gly Ile Ser Lys Val | |
| 210 215 220 | |
| Phe Phe Thr Cys Val Asn His Glu Glu Leu Leu Pro Leu Glu Gln Ala | |
| 225 230 235 240 | |
| Ile Asn Ala Arg Trp Gly Asp Arg Val Asn Val Ser Phe Ser Thr Leu | |
| 245 250 255 | |
| Thr Cys Leu Glu Val Met Ala Gly Gly Val Ser Lys Gly His Ala Leu | |
| 260 265 270 | |
| Glu Ala Val Ala Lys Arg Leu Gly Phe Asp Leu Lys Asp Cys Ile Ala | |
| 275 280 285 | |
| Phe Gly Asp Gly Met Asn Asp Ala Glu Met Leu Ser Met Ala Gly Lys | |

| | | | | |
|---|-----|-----|-----|-----|
| 290 | | 295 | | 300 |
| Gly Cys Ile Met Gln Asn Ala His Gln Arg Leu Lys Asp Leu His Pro | | | | |
| 305 | | 310 | | 315 |
| Glu Leu Glu Val Ile Gly Thr Asn Ala Asp Asn Ala Val Pro Lys Tyr | | | | |
| | 325 | | 330 | 335 |
| Leu Arg Lys Leu Phe Leu Glu | | | | |
| 340 | | | | |

<210> 7690

<211> 220

<212> PRT

<213> Enterobacter cloacae

<400> 7690

| | | | | |
|---|-----|-----|-----|--|
| Arg Arg Val Ser Ser Arg Cys Ile Val Val Thr Ser Ser Glu Trp Arg | | | | |
| 1 | 5 | 10 | 15 | |
| Phe Pro Val Pro Ile Lys Pro Leu Val Thr Ala Gly Ile Glu Asn Val | | | | |
| | 20 | 25 | 30 | |
| Leu Asn Ala Phe Leu Tyr Arg Ala Pro Ala Leu Lys Thr Ala Arg Gln | | | | |
| | 35 | 40 | 45 | |
| Arg Leu Asn Gly Lys Val Leu Arg Ile Val Leu Lys Glu Phe Ser Thr | | | | |
| | 50 | 55 | 60 | |
| Pro Leu Val Leu Val Phe Ser Glu Arg Gln Leu Asp Val Leu Gly Glu | | | | |
| 65 | 70 | 75 | 80 | |
| Trp Glu Gly Glu Ala Asp Cys Ser Val Ile Thr His Met Ser Val Leu | | | | |
| | 85 | 90 | 95 | |
| Pro Lys Leu Arg Asp Arg Gln Gln Met Thr Ala Leu Ile Arg Ser Gly | | | | |
| | 100 | 105 | 110 | |
| Glu Leu Glu Val Glu Gly Asp Ile Gln Val Val Gln Asn Phe Val Ala | | | | |
| | 115 | 120 | 125 | |
| Leu Ser Asp Gln Ala Glu Phe Asp Pro Ala Glu Leu Leu Ala Pro Tyr | | | | |
| | 130 | 135 | 140 | |
| Ile Gly Asp Ile Ala Ala Glu Gly Ile Ser Lys Thr Leu Arg Thr Gly | | | | |
| 145 | 150 | 155 | 160 | |
| Ser Ala Phe Leu Arg Lys Gly Leu Leu Arg Gln Gln Arg Tyr Ala Ala | | | | |
| | 165 | 170 | 175 | |
| Glu Val Leu Thr Glu Glu Trp Arg Met Ala Pro Gly Pro Leu Glu Val | | | | |
| | 180 | 185 | 190 | |
| Ala Trp Phe Ala Glu Glu Thr Ala Ala Val Glu Arg Ala Val Asp Ala | | | | |
| | 195 | 200 | 205 | |
| Leu Thr Lys Arg Leu Glu Lys Leu Glu Gly Lys | | | | |
| 210 | 215 | 220 | | |

<210> 7691

<211> 94

<212> PRT

<213> Enterobacter cloacae

<400> 7691

| | | | | |
|---|----|----|----|--|
| Leu Ile Ile Tyr His Trp Gly Thr Arg Met Gly Gly Ile Ser Ile Trp | | | | |
| 1 | 5 | 10 | 15 | |
| Gln Leu Val Ile Ile Ala Val Ile Val Val Leu Leu Phe Gly Thr Lys | | | | |
| | 20 | 25 | 30 | |
| Lys Leu Gly Ser Ile Gly Ser Asp Leu Gly Ala Ser Ile Lys Gly Phe | | | | |
| | 35 | 40 | 45 | |
| Lys Lys Ala Met Ser Asp Asp Glu Asn Lys Gln Glu Lys Thr Ser Gln | | | | |
| | 50 | 55 | 60 | |
| Asp Ala Asp Phe Thr Ala Lys Ser Ile Ala Asp Lys Gln Asp Glu Ala | | | | |
| 65 | 70 | 75 | 80 | |
| Lys Lys Glu Glu Ala Lys Arg His Asp Lys Glu Gln Val | | | | |
| | 85 | 90 | | |

<210> 7692
 <211> 182
 <212> PRT
 <213> Enterobacter cloacae

<400> 7692
 Phe Val Phe Asp Ile Gly Phe Gly Glu Leu Leu Leu Val Phe Val Ile
 1 5 10 15
 Gly Leu Ile Val Leu Gly Pro Gln Arg Leu Pro Val Ala Val Lys Thr
 20 25 30
 Val Val Gly Trp Val Arg Ala Leu Arg Ser Leu Ala Thr Thr Val Gln
 35 40 45
 Asn Glu Leu Ala Gln Glu Leu Lys Leu Gln Glu Phe Gln Asp Ser Leu
 50 55 60
 Lys Lys Val Glu Lys Ala Ser Met Asp Asn Leu Thr Pro Glu Leu Lys
 65 70 75 80
 Ala Ser Met Asp Glu Leu Arg Glu Ala Ala Glu Ser Met Lys Arg Ser
 85 90 95
 Tyr Ser Ile Asn Asp Pro Glu Lys Ala Ser Asp Glu Ala Asn Thr Ile
 100 105 110
 His Asn Pro Val Val Lys Gly Ser Glu Glu Gln Arg Glu Gly Val Thr
 115 120 125
 Pro Ser Ser Ala Glu His Gln Ala Ala Ser Pro Glu Gln Ser Pro Gln
 130 135 140
 Glu Pro Glu Val Lys Lys Gln Val Pro Pro Glu Glu Pro Val Val Lys
 145 150 155 160
 Thr Ala Glu Val Lys Pro Ala Ala Pro Val Ser Glu Ser Ser Pro Ser
 165 170 175
 Ser Ser Asp Lys Ala
 180

<210> 7693
 <211> 174
 <212> PRT
 <213> Enterobacter cloacae

<220>
 <221> UNSURE
 <222> (174)

<400> 7693
 Lys Leu Tyr Leu Ala Arg Leu Thr Trp Thr Ile Leu Val Ser Val Gly
 1 5 10 15
 His Ala Cys Ala Gly Val Arg Phe Leu Gly Glu Arg Ser Asn Lys Met
 20 25 30
 Ala Thr Gly Lys Ser Cys Ser Arg Trp Phe Ala Pro Ile Ala Ala Leu
 35 40 45
 Leu Met Val Val Ser Leu Ser Gly Cys Phe Asp Lys Glu Gly Asp Gln
 50 55 60
 Arg Lys Ala Phe Ile Asp Phe Leu Gln Asn Thr Val Met Arg Ser Gly
 65 70 75 80
 Glu Arg Leu Pro Thr Leu Thr Ala Asp Gln Lys Lys Gln Phe Gly Pro
 85 90 95
 Phe Val Ser Asp Tyr Ala Ile Leu Tyr Gly Tyr Ser Gln Gln Val Ser
 100 105 110
 Gln Ala Met Asp Ser Gly Ile Arg Pro Val Val Asp Ser Val Asn Ala
 115 120 125
 Ile Arg Val Pro Gln Asp Tyr Met Thr Gln Arg Glu Pro Leu Arg Gln
 130 135 140
 Ser Asn Gly Ala Leu Gly Val Leu Ser Gln Gln Leu Gln Asn Ala Gln


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<210> 7694
<211> 304
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Ser | Ile | Val | Ala | Leu | Leu | Ile | Ile | Thr | Thr | Ile | Leu | Trp | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Ser | Phe | Ser | Leu | Ile | Gly | Glu | Tyr | Leu | Ala | Gly | Ser | Val | Asp | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Phe | Ser | Val | Leu | Met | Arg | Val | Gly | Leu | Ala | Ala | Leu | Val | Phe | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Phe | Leu | Arg | Thr | Arg | Gly | Gln | Ser | Leu | Lys | Thr | Ile | Leu | Leu | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Leu | Val | Gly | Ala | Met | Gln | Leu | Gly | Ile | Met | Tyr | Leu | Phe | Ser | Phe |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Arg | Ala | Tyr | Val | Tyr | Leu | Ser | Val | Ser | Glu | Phe | Leu | Leu | Phe | Thr | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Thr | Pro | Leu | Tyr | Ile | Thr | Leu | Ile | Tyr | Asp | Leu | Leu | Ser | Arg | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Leu | Arg | Trp | Gly | Tyr | Leu | Leu | Ser | Ala | Ala | Leu | Ala | Val | Ile | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Ala | Ile | Ile | Arg | Tyr | Asp | Lys | Val | Ser | Asp | His | Phe | Trp | Thr | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Met | Phe | Val | Gln | Leu | Ala | Asn | Ile | Ser | Phe | Ala | Ile | Gly | Met | Val |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Gly | Tyr | Lys | Arg | Leu | Met | Glu | Thr | Arg | Pro | Met | Pro | Gln | His | Asn | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Ala | Trp | Phe | Tyr | Met | Gly | Ala | Ala | Ile | Val | Ala | Ile | Ala | Ala | Trp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Phe | Met | Leu | Gly | Asn | Pro | Gln | Lys | Leu | Pro | Thr | Thr | Pro | Val | Gln | Trp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Val | Leu | Val | Trp | Leu | Gly | Val | Val | Ala | Ser | Gly | Leu | Gly | Tyr | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Met | Trp | Asn | Tyr | Gly | Ala | Thr | Gln | Val | Asp | Ala | Gly | Thr | Leu | Gly | Ile |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Met | Asn | Asn | Val | His | Val | Pro | Ala | Gly | Leu | Leu | Val | Asn | Leu | Ala | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Trp | Gln | Glu | Gln | Pro | His | Trp | Pro | Ser | Phe | Leu | Ile | Gly | Gly | Thr | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Leu | Ala | Ser | Leu | Trp | Val | His | Arg | Arg | Trp | Val | Ala | Pro | Arg | Ser |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Gln | Thr | Glu | Asp | Gly | Arg | Thr | Arg | Gly | Ser | Ala | Leu | Ser | Glu | |
| | 290 | | | | | 295 | | | | | 300 | | | | |

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<210> 7695
<211> 763
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Thr | Asn | Phe | Tyr | Lys | Gly | Tyr | Ala | Met | Thr | Ile | Arg | Thr | His | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Gly | Phe | Pro | Arg | Val | Gly | Leu | Arg | Arg | Glu | Leu | Lys | Lys | Ala | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ser | Tyr | Trp | Ala | Gly | Asn | Ala | Thr | Arg | Glu | Glu | Leu | Leu | Ala | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Arg | Glu | Leu | Arg | Ala | Arg | His | Trp | Asp | Gln | Gln | Lys | Gln | Ala | Gly |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Val | Asp | Leu | Leu | Pro | Val | Gly | Asp | Phe | Ala | Trp | Tyr | Asp | His | Val | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Thr | Ser | Leu | Leu | Leu | Gly | Asn | Val | Pro | Ala | Arg | His | Gln | Asn | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asp | Gly | Ser | Val | Asp | Ile | Asp | Thr | Leu | Phe | Arg | Ile | Gly | Arg | Gly | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Pro | Thr | Gly | Glu | Pro | Ala | Ala | Ala | Ala | Glu | Met | Thr | Lys | Trp | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Thr | Asn | Tyr | His | Tyr | Met | Val | Pro | Glu | Phe | Val | Lys | Gly | Gln | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Lys | Leu | Thr | Trp | Thr | Gln | Leu | Leu | Asp | Glu | Val | Asp | Glu | Ala | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Leu | Gly | His | Gln | Val | Lys | Pro | Val | Leu | Leu | Gly | Pro | Val | Thr | Tyr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Trp | Leu | Gly | Lys | Val | Lys | Gly | Glu | Gln | Phe | Asp | Arg | Leu | Ser | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Asn | Asp | Ile | Leu | Pro | Val | Tyr | Lys | Gln | Val | Leu | Ile | Glu | Leu | Gly |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Lys | Arg | Gly | Ile | Gln | Trp | Val | Gln | Ile | Asp | Glu | Pro | Ala | Leu | Val | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Leu | Pro | Gln | Ala | Trp | Leu | Asp | Ala | Phe | Lys | Pro | Ala | Tyr | Asp | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Thr | Gly | Gln | Val | Lys | Leu | Leu | Leu | Thr | Thr | Tyr | Phe | Glu | Gly | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Thr | Pro | Asn | Leu | Asp | Thr | Ile | Thr | Ala | Leu | Pro | Val | Gln | Gly | Leu | His |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Asp | Leu | Val | His | Gly | Lys | Asp | Asp | Val | Ala | Glu | Leu | His | Lys | Arg |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Leu | Pro | Ala | Glu | Trp | Leu | Leu | Ser | Ala | Gly | Leu | Val | Asn | Gly | Arg | Asn |
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| Val | Trp | Arg | Ala | Asp | Leu | Thr | Glu | Lys | Tyr | Ala | Gln | Ile | Lys | Asp | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Val | Gly | Lys | Arg | Glu | Leu | Trp | Ile | Ala | Ser | Ser | Cys | Ser | Leu | Leu | His |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ser | Pro | Ile | Asp | Leu | Ser | Val | Glu | Thr | Arg | Leu | Asp | Pro | Glu | Val | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Trp | Phe | Ala | Phe | Ala | Leu | Gln | Lys | Cys | Glu | Glu | Leu | Ala | Leu | Leu |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Arg | Asp | Ala | Leu | Asn | Ser | Gly | Asp | Thr | Ala | Ala | Ile | Thr | His | Trp | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Pro | Ile | Gln | Ala | Arg | Arg | His | Ser | Thr | Arg | Val | His | Asn | Pro | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Glu | Lys | Arg | Leu | Ala | Ala | Ile | Thr | Ala | Arg | Asp | Ser | Gln | Arg | Gln |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ser | Pro | Tyr | Glu | Val | Arg | Ala | Glu | Ala | Gln | Arg | Ala | Arg | Phe | Asn | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Pro | Ala | Trp | Pro | Thr | Thr | Thr | Ile | Gly | Ser | Phe | Pro | Gln | Thr | Thr | Glu |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ile | Arg | Gly | Leu | Arg | Leu | Asp | Phe | Lys | Lys | Gly | Asn | Leu | Asp | Ala | Asn |
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| His | Tyr | Arg | Thr | Gly | Ile | Ala | Glu | His | Ile | Lys | Gln | Ala | Ile | Val | Glu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gln | Glu | Arg | Leu | Gly | Leu | Asp | Val | Leu | Val | His | Gly | Glu | Ala | Glu | Arg |
| | | | 485 | | | | | | 490 | | | | | 495 | |
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| | | | 500 | | | | | 505 | | | | | 510 | | |
| Thr | Gln | Asn | Gly | Trp | Val | Gln | Ser | Tyr | Gly | Ser | Arg | Cys | Val | Lys | Pro |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Pro | Val | Val | Ile | Gly | Asp | Val | Ser | Arg | Pro | Glu | Ala | Ile | Thr | Val | Glu |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 530 | | 535 | | 540 | | | | | | | | | | | |
| Trp | Ala | Lys | Tyr | Ala | Gln | Ser | Leu | Thr | Asp | Lys | Pro | Val | Lys | Gly | Met |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Leu | Thr | Gly | Pro | Val | Thr | Ile | Leu | Cys | Trp | Ser | Phe | Pro | Arg | Glu | Asp |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Val | Ser | Arg | Glu | Thr | Ile | Ala | Lys | Gln | Ile | Ala | Leu | Ala | Leu | Arg | Asp |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Glu | Val | Ala | Asp | Leu | Glu | Ala | Ala | Gly | Ile | Gly | Ile | Ile | Gln | Ile | Asp |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Glu | Pro | Ala | Leu | Arg | Glu | Gly | Leu | Pro | Leu | Arg | Arg | Ser | Asp | Trp | Asp |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ala | Tyr | Leu | Gln | Trp | Gly | Val | Glu | Ala | Phe | Arg | Leu | Asn | Ala | Ala | Val |
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| Ala | Lys | Asp | Asp | Thr | Gln | Ile | His | Thr | His | Met | Cys | Tyr | Cys | Glu | Phe |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Asn | Asp | Ile | Met | Asp | Ser | Ile | Ala | Ala | Leu | Asp | Ala | Asp | Val | Ile | Thr |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Ile | Glu | Thr | Ser | Arg | Ser | Asp | Met | Glu | Leu | Leu | Glu | Ser | Phe | Glu | Glu |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Phe | Asp | Tyr | Pro | Asn | Glu | Ile | Gly | Pro | Gly | Val | Tyr | Asp | Ile | His | Ser |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Pro | Asn | Val | Pro | Ser | Val | Glu | Trp | Ile | Glu | Ser | Leu | Leu | Gln | Lys | Ala |
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| Ala | Gln | Arg | Ile | Pro | Ala | Glu | Arg | Leu | Trp | Val | Asn | Pro | Asp | Cys | Gly |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Leu | Lys | Thr | Arg | Gly | Trp | Pro | Glu | Thr | Arg | Ala | Ala | Leu | Ala | Asn | Met |
| | | | 740 | | | | | 745 | | | | | 750 | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7696

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| 1 | | | 5 | | | | | 10 | | | | | 15 | | |
| Met | Ser | Lys | Ser | Asp | Val | Phe | His | Leu | Gly | Leu | Thr | Lys | Asn | Asp | Leu |
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| Gln | Gly | Ala | Thr | Leu | Ala | Ile | Val | Pro | Gly | Asp | Pro | Glu | Arg | Val | Glu |
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| Lys | Ile | Ala | Ala | Leu | Met | Asp | Lys | Pro | Val | Lys | Leu | Ala | Ala | His | Arg |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Glu | Phe | Thr | Thr | Trp | Arg | Ala | Glu | Leu | Asp | Gly | Lys | Ala | Val | Ile | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Cys | Ser | Thr | Gly | Ile | Gly | Gly | Pro | Ser | Thr | Ser | Ile | Ala | Val | Glu | Glu |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Leu | Ala | Gln | Leu | Gly | Ile | Arg | Thr | Phe | Leu | Arg | Ile | Gly | Thr | Thr | Gly |
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| Ala | Ile | Gln | Pro | His | Ile | Asn | Val | Gly | Asp | Val | Leu | Val | Thr | Thr | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Val | Arg | Leu | Asp | Gly | Ala | Ser | Leu | His | Phe | Ala | Pro | Met | Glu | Phe |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Pro | Ala | Val | Ala | Asp | Phe | Glu | Cys | Thr | Thr | Ala | Leu | Val | Glu | Ala | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Ser | Val | Gly | Ala | Thr | Thr | His | Val | Gly | Val | Thr | Ala | Ser | Ser | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Phe | Tyr | Pro | Gly | Gln | Glu | Arg | Tyr | Asp | Thr | Phe | Ser | Gly | Arg | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
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[illegible]

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<212> PRT

<213> Enterobacter cloacae

<400> 7698

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| Arg | Asp | Phe | Leu | Ala | Leu | Leu | Glu | Lys | Gln | Gly | Glu | Leu | Lys | Arg | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Leu | Pro | Val | Asp | Pro | Tyr | Leu | Glu | Met | Thr | Glu | Ile | Ala | Asp | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Leu | Arg | Ala | Gly | Gly | Pro | Ala | Leu | Leu | Phe | Glu | Asn | Pro | Lys | Gly |
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| Tyr | Thr | Met | Pro | Val | Leu | Cys | Asn | Leu | Phe | Gly | Thr | Pro | Arg | Arg | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Leu | Gly | Met | Gly | Gln | Glu | Asp | Val | Thr | Ala | Leu | Arg | Glu | Val | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Leu | Leu | Ala | Phe | Leu | Lys | Glu | Pro | Glu | Pro | Pro | Lys | Gly | Phe | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Leu | Phe | Asp | Lys | Leu | Pro | Gln | Phe | Lys | Gln | Val | Leu | Asn | Met | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Lys | Arg | Leu | Arg | Gly | Ala | Pro | Cys | Gln | Gln | Lys | Val | Leu | Glu | Gly |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Asp | Ala | Val | Asp | Leu | Thr | Lys | Ile | Pro | Ile | Met | Gln | Cys | Trp | Pro | Glu |
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| Asp | Ala | Ala | Pro | Leu | Ile | Thr | Trp | Gly | Leu | Thr | Val | Thr | Arg | Gly | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| His | Lys | Glu | Arg | Gln | Asn | Leu | Gly | Ile | Tyr | Arg | Gln | Gln | Leu | Ile | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Asn | Lys | Leu | Ile | Met | Arg | Trp | Leu | Ser | His | Arg | Gly | Gly | Ala | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Phe | Gln | Glu | Trp | Cys | Ala | Ala | His | Pro | Gly | Glu | Arg | Phe | Pro | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Val | Ala | Leu | Gly | Ala | Asp | Pro | Ala | Thr | Ile | Leu | Gly | Ala | Val | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Val | Pro | Asp | Thr | Leu | Ser | Glu | Tyr | Ala | Phe | Ala | Gly | Leu | Leu | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Thr | Lys | Thr | Glu | Val | Val | Lys | Cys | Ile | Ser | Asn | Asp | Leu | Glu | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Ala | Ser | Ala | Glu | Ile | Val | Leu | Glu | Gly | Tyr | Ile | Glu | Gln | Gly | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Ala | Pro | Glu | Gly | Pro | Tyr | Gly | Asp | His | Thr | Gly | Tyr | Tyr | Asn | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Asp | Asn | Phe | Pro | Val | Phe | Thr | Val | Thr | His | Ile | Thr | Gln | Arg | Glu |
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| Asp | Ala | Ile | Tyr | His | Ser | Thr | Tyr | Thr | Gly | Arg | Pro | Pro | Asp | Glu | Pro |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ala | Val | Leu | Gly | Val | Ala | Leu | Asn | Glu | Val | Phe | Val | Pro | Ile | Leu | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Gln | Phe | Pro | Glu | Ile | Val | Asp | Phe | Tyr | Leu | Pro | Pro | Glu | Gly | Cys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Tyr | Arg | Leu | Ala | Val | Val | Thr | Met | Lys | Lys | Gln | Tyr | Ala | Gly | His |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Lys | Arg | Val | Met | Met | Gly | Val | Trp | Ser | Phe | Leu | Arg | Gln | Phe | Met |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Tyr | Thr | Lys | Phe | Val | Ile | Val | Cys | Asp | Asp | Asp | Val | Asn | Ala | Arg | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Trp | Asn | Asp | Val | Ile | Trp | Ala | Ile | Thr | Thr | Arg | Met | Asp | Pro | Ala | Arg |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Thr | Val | Leu | Val | Glu | Asn | Thr | Pro | Ile | Asp | Tyr | Leu | Asp | Phe | Ala |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ser | Pro | Val | Ser | Gly | Leu | Gly | Ser | Lys | Met | Gly | Leu | Asp | Ala | Thr | Asn |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Lys | Trp | Pro | Gly | Glu | Thr | Asp | Arg | Glu | Trp | Gly | Arg | Pro | Ile | Glu | Lys |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asp | Pro | Ala | Val | Thr | Ala | Arg | Ile | Asp | Ala | Ile | Trp | Asp | Glu | Leu | Ala |
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500

505

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 <213> Enterobacter cloacae

<400> 7699

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Val | Asp | Ala | Ile | Thr | Asp | Thr | Val | Tyr | Arg | Val | Arg | Leu | Val | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ala | Ala | Phe | Ser | Phe | Arg | Ala | Gly | Gln | Tyr | Leu | Met | Val | Val | Met |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asp | Glu | Arg | Asp | Lys | Arg | Pro | Phe | Ser | Met | Ala | Ser | Thr | Pro | Ala | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Glu | Phe | Ile | Glu | Leu | His | Ile | Gly | Ala | Ser | Glu | Leu | Asn | Leu | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Met | Ala | Val | Met | Asp | Arg | Ile | Leu | Lys | Glu | Arg | Glu | Ile | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Ile | Pro | His | Gly | Glu | Ala | Trp | Leu | Arg | Glu | Asp | Glu | Asp | Arg | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ile | Leu | Ile | Ala | Gly | Gly | Thr | Gly | Phe | Ser | Tyr | Val | Arg | Ser | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Leu | Thr | Ala | Leu | Ala | Arg | Asn | Pro | Asn | Arg | Asp | Ile | Thr | Ile | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Trp | Gly | Gly | Arg | Glu | Glu | Lys | His | Leu | Tyr | Asp | Leu | Ser | Glu | Leu | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ala | Leu | Ser | Val | Asn | His | Pro | Asn | Leu | Arg | Ile | Glu | Pro | Val | Val | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gln | Pro | Glu | Glu | Gly | Trp | Arg | Gly | Arg | Ser | Gly | Thr | Val | Leu | Thr | Ala |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Val | Leu | Gln | Asp | His | Gly | Thr | Leu | Ala | Gly | His | Asp | Ile | Tyr | Ile | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Arg | Phe | Glu | Met | Ala | Lys | Ile | Ala | Arg | Asp | Leu | Phe | Cys | Asn | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Asp | Ala | Arg | Glu | Asp | Arg | Leu | Phe | Gly | Asp | Ala | Phe | Ala | Phe | Ile |
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<400> 7700

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Leu | His | Gln | Val | Thr | Cys | Gln | Phe | Ala | Thr | Gly | Asp | Ile | Leu | Phe |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Pro | Leu | Asn | Leu | Ser | Leu | Asp | Ala | Ser | Val | Cys | Ala | Leu | Val | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Asn | Gly | Ser | Gly | Lys | Thr | Arg | Leu | Leu | Arg | Leu | Leu | Ala | Gly | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Glu | Pro | Ala | Ser | Gly | His | Ile | Glu | Arg | Phe | Gly | Thr | His | Val | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Val | Ala | Gln | Gln | Gln | Asp | Ile | Ser | Ala | Asp | Thr | Thr | Leu | Ala | Glu | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Gly | Tyr | Asp | Ala | Ile | Phe | Ala | Ala | Arg | Thr | Arg | Ile | Asp | Ser | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |

His Tyr Glu Pro Asp Asp Leu Asp Thr Leu Asp Gly Tyr Trp Asp Leu
 115 120 125
 Ala Glu Arg Leu Ser Gln Ala Phe Ile Ala Ala Lys Leu Pro Pro Phe
 130 135 140
 Asp Pro Ser Lys Arg Ala Ala Glu Leu Ser Gly Gly Glu Arg Ile Arg
 145 150 155 160
 Ala Leu Leu Cys Ser Ala Phe Thr Ala Asp Ala Asp Tyr Leu Leu Leu
 165 170 175
 Asp Glu Pro Thr Asn His Leu Asp Arg Gln Gly Arg Lys Trp Phe Tyr
 180 185 190
 Glu Gln Leu Ser Arg Tyr Gln Gly Gly Val Leu Val Ala Ser His Asp
 195 200 205
 Arg Glu Leu Leu Ala Gln Val Pro Arg Ile Leu Glu Leu Ser Ala Leu
 210 215 220
 Gly Leu Arg Ser Tyr Gly Gly Asn Tyr Ala Asp Tyr Arg Thr Gln Arg
 225 230 235 240
 Asp Ala Glu Gln Leu Ala Ala Arg Ala Ala Leu Glu His Ala Ala Thr
 245 250 255
 Glu Arg Lys Arg Thr Arg Ala Arg Met His Lys Glu His Asp Asp Ser
 260 265 270
 Leu Arg Arg Ser Ala Lys Thr Leu Arg Thr Val Asp Ser Leu Asn Ile
 275 280 285
 Ala Ser Phe Glu Arg Val Lys Tyr Lys Gly Ala Ala Lys Glu Arg Ile
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 Gly Ser Trp Lys Lys Gln His Ser Val Gln Asn His Ala Leu Asn Ala
 305 310 315 320
 Ala Val Asn Gln Ala Arg Glu Arg Val Glu Glu Asp Asn Ala Val Met
 325 330 335
 Phe Thr Leu Pro Gly Ser Glu Ile Pro Glu Gly Lys Gln Val Leu Val
 340 345 350
 Leu Glu Glu Leu Val Leu Pro His Val Pro Val Pro Pro Ile Asn Trp
 355 360 365
 Arg Met Asp Gly Pro Met Arg Val Ala Leu Arg Gly Pro Asn Gly Cys
 370 375 380
 Gly Lys Ser Thr Leu Leu Lys Val Met Leu Gly Glu Thr Ala Pro Val
 385 390 395 400
 Thr Gly Thr Cys Lys Val Ser Val Arg Cys Ala Tyr Leu Asp Gln His
 405 410 415
 Leu Ser Arg Leu Asp Leu Ser Gln Ser Val Met Thr His Leu Ser Leu
 420 425 430
 Gly Asn Thr Pro Leu Glu Glu Gly Ala Leu Arg Thr Arg Leu Ala Gln
 435 440 445
 Leu Gln Leu Gly Ala Glu Lys Val Thr Leu Pro Leu Ala Glu Leu Ser
 450 455 460
 Gly Gly Glu Arg Leu Lys Ala Ala Leu Ala Cys Val Leu Trp Arg Glu
 465 470 475 480
 Ala Ala Thr Gln Leu Leu Leu Asp Glu Pro Thr Asn His Leu Asp
 485 490 495
 Leu Ala Ser Val Gln Ala Ile Glu Ala Ala Leu Ala Asp Tyr Pro Gly
 500 505 510
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<212> PRT

<213> Enterobacter cloacae

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| Val | Val | Asp | Asn | Arg | Met | His | Asp | Arg | Tyr | Cys | Glu | Leu | Arg | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Gly | His | Pro | Cys | Glu | Gly | Gly | Lys | Pro | Leu | Val | Ile | Asn | Gly | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | His | Glu | Ile | Leu | Phe | Glu | Lys | Asp | Ala | Met | Arg | Ser | Val | Ala | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
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| Phe | Cys | Val | Thr | Pro | Arg | Arg | Lys | Thr | Leu | Ser | Asn | Trp | Thr | Phe | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | His | Asn | Ser | Ile | Leu | Cys | Gly | Leu | Asp | Val | Asp | Ala | Gly | Gly | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Asp | Ile | Ser | Ile | Leu | Val | Tyr | Ala | Val | Val | Ala | Leu | Val | Ser | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ile | Gly | Trp | Leu | Ile | Cys | Gly | Tyr | Gln | His | Ala | Gln | Gln | Lys | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Gln | Leu | Ala | Glu | Arg | Glu | Glu | Ile | Val | Ala | Glu | Leu | Ser | Ala | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Gln | Gln | Leu | Ala | Leu | Ser | Asp | His | Trp | Arg | Asp | Glu | Cys | Glu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Asn | Asn | Glu | Leu | Arg | Asn | Leu | Arg | Asp | Ile | Asn | Thr | Ser | Leu | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Asp | Leu | Arg | Glu | Val | Thr | Thr | Arg | Leu | Glu | Ser | Thr | Gln | Leu | His |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Glu | Asp | Lys | Ile | Arg | Gln | Met | Ile | Asn | Ser | Glu | Gln | Arg | Leu | Ser |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | Gln | Phe | Glu | Asn | Leu | Ala | Asn | Arg | Ile | Phe | Glu | His | Ser | Asn | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Val | Asp | Glu | Gln | Asn | Arg | Gln | Ser | Leu | Asn | Ser | Leu | Leu | Thr | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Arg | Glu | Gln | Leu | Asp | Gly | Phe | Arg | Arg | Gln | Val | Gln | Asp | Ser | Phe |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Gly | Gln | Glu | Ala | Arg | Glu | Arg | His | Thr | Leu | Ala | His | Glu | Ile | Arg | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gln | Gln | Leu | Asn | Ala | Gln | Met | Ala | Gln | Glu | Ala | Val | Asn | Leu | Thr |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Arg | Ala | Leu | Lys | Gly | Asp | Asn | Lys | Ala | Gln | Gly | Asn | Trp | Gly | Glu | Val |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Val | Met | Thr | Arg | Val | Leu | Glu | Ala | Ser | Gly | Leu | Arg | Glu | Gly | Tyr | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Tyr | Glu | Thr | Gln | Val | Ser | Ile | Glu | Asn | Asp | Ala | Arg | Ser | Arg | Met | Gln |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Pro | Asp | Val | Ile | Val | Arg | Leu | Pro | Gln | Gly | Lys | Asp | Val | Val | Ile | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Lys | Met | Thr | Leu | Val | Ala | Tyr | Glu | Arg | Tyr | Phe | Asn | Ala | Glu | Asp |
| 305 | | | | 310 | | | | | | 315 | | | | 320 | |
| Asp | Tyr | Thr | Arg | Glu | Thr | Ala | Leu | Gln | Glu | His | Ile | Ala | Ser | Val | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |


```

Asn His Ile Arg Leu Leu Gly Arg Lys Asp Tyr Gln Gln Leu Pro Gly
      340      345      350
Leu Arg Ser Leu Asp Tyr Val Leu Met Phe Ile Pro Val Glu Pro Ala
      355      360      365
Phe Leu Leu Ala Leu Asp Arg Gln Pro Glu Leu Ile Thr Glu Ala Leu
      370      375      380
Lys Asn Asn Ile Met Leu Val Ser Pro Thr Thr Leu Leu Val Ala Leu
      385      390      395      400
Arg Thr Ile Ala Asn Leu Trp Arg Tyr Glu His Gln Ser Arg Asn Ala
      405      410      415
Gln Gln Ile Ala Asp Arg Ala Ser Lys Leu Tyr Asp Lys Met Arg Leu
      420      425      430
Phe Val Asp Asp Met Ser Ser Val Gly Gln Ser Leu Asp Arg Ala Gln
      435      440      445
Asp Asn Tyr Arg Gln Ala Met Lys Lys Leu Ser Ser Gly Arg Gly Asn
      450      455      460
Leu Leu Ala Gln Ala Glu Ala Phe Arg Ser Leu Gly Val Glu Val Lys
      465      470      475      480
Arg Glu Ile Asn Pro Glu Leu Val Glu Gln Ala Thr Ala Gln Asp Glu
      485      490      495
Glu Phe Arg Leu Arg Glu Gly Asp Gly Glu Gln Asn Ser Arg Asn Glu
      500      505      510
Asp Asn Gly Leu Ala Ala Ser Leu Ser Pro Glu Ala Gln Pro Ala Arg
      515      520      525
Phe Phe His Gly Gly
      530

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<210> 7703

<211> 257

<212> PRT

<213> Enterobacter cloacae

<400> 7703

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Leu Ala Gly Ser Glu Met Val Asp Asp Ser Gln Asp Thr Thr His Phe
1      5      10      15
Gly Phe Gln Thr Val Ala Lys Ala Gln Lys Ala Asp Met Val Ala His
20      25      30
Val Phe His Ser Val Ala Ala Lys Tyr Asp Val Met Asn Asp Leu Met
35      40      45
Ser Phe Gly Ile His Arg Leu Trp Lys Arg Phe Thr Ile Asp Cys Ser
50      55      60
Gly Val Arg Arg Gly Gln Thr Val Leu Asp Leu Ala Gly Gly Thr Gly
65      70      75      80
Asp Leu Thr Ala Lys Phe Ser Arg Leu Val Gly Glu Thr Gly Arg Val
85      90      95
Val Leu Ala Asp Ile Asn Asp Ser Met Leu Lys Met Gly Arg Glu Lys
100      105      110
Leu Arg Asn Ile Gly Val Val Gly Asn Val Glu Tyr Val Gln Ala Asn
115      120      125
Ala Glu Ala Leu Pro Phe Pro Asp Asn Thr Phe Asp Cys Ile Thr Ile
130      135      140
Ser Phe Gly Leu Arg Asn Val Thr Asp Lys Asp Lys Ala Leu Arg Ser
145      150      155      160
Met Tyr Arg Val Leu Lys Pro Gly Gly Arg Leu Leu Val Leu Glu Phe
165      170      175
Ser Lys Pro Ile Asp Pro Leu Ser Lys Ala Tyr Asp Ala Tyr Ser
180      185      190
Phe His Val Leu Pro Arg Ile Gly Glu Leu Val Ala Asn Asp Ala Glu
195      200      205
Ser Tyr Arg Tyr Leu Ala Glu Ser Ile Arg Met His Pro Asp Gln Asp
210      215      220

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Leu | Lys | Ala | Met | Met | Gln | Asp | Ala | Glu | Phe | Glu | Asn | Val | Glu | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Asn | Met | Thr | Ala | Gly | Val | Val | Ala | Leu | His | Arg | Gly | Tyr | Lys | Phe |
| | | | | 245 | | | | | 250 | | | | | 255 | |

<210> 7704

<211> 559

<212> PRT

<213> Enterobacter cloacae

<400> 7704

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Val | Asn | Gln | Thr | Ala | Gly | Lys | Thr | Gly | Gly | Gln | Met | Thr | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Ile | Arg | Arg | Leu | Tyr | Phe | Ile | Val | Arg | Thr | Phe | Leu | Ser | Tyr | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Asp | Glu | Leu | Ile | Pro | Arg | Met | Arg | Ile | Thr | Leu | Pro | Leu | Arg | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Trp | Arg | Arg | Thr | Leu | Phe | Trp | Met | Pro | Asn | Arg | His | Lys | Asp | Gln | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Gly | Ala | Arg | Leu | Arg | Leu | Ala | Leu | Gln | Glu | Leu | Gly | Pro | Val | Trp |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Ile | Lys | Phe | Gly | Gln | Met | Leu | Ser | Thr | Arg | Arg | Asp | Leu | Phe | Pro | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Ile | Ala | Asp | Gln | Leu | Ala | Leu | Leu | Gln | Asp | Arg | Val | Ala | Pro | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Gly | Glu | Arg | Ala | Lys | Lys | Gln | Ile | Glu | Glu | Ala | Met | Gly | Asn | Ile |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Pro | Ile | Glu | Thr | Trp | Phe | Asp | Asp | Phe | Asp | Ile | Gln | Pro | Leu | Ala | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Ser | Ile | Ala | Gln | Val | His | Thr | Ala | Arg | Leu | Lys | Glu | Asn | Gly | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Val | Val | Ile | Lys | Val | Ile | Arg | Pro | Asp | Ile | Leu | Pro | Val | Ile | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Asp | Met | Lys | Leu | Ile | Tyr | Arg | Leu | Ala | Arg | Trp | Val | Pro | Arg | Leu |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Pro | Asp | Gly | Arg | Arg | Leu | Arg | Pro | Leu | Glu | Val | Val | Arg | Glu | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Lys | Thr | Leu | Ile | Asp | Glu | Leu | Asn | Leu | Leu | Arg | Glu | Ser | Ala | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Ile | Gln | Leu | Arg | Arg | Asn | Phe | Glu | Asp | Ser | Pro | Met | Leu | Tyr | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Glu | Val | Tyr | Ser | Asp | Tyr | Cys | Ser | Gln | Asn | Met | Met | Val | Met | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Ile | Tyr | Gly | Ile | Pro | Val | Ser | Asp | Val | Thr | Ala | Leu | Glu | Lys | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Thr | Asn | Met | Lys | Leu | Leu | Ala | Glu | Arg | Gly | Val | Gln | Val | Phe | Phe |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Gln | Val | Phe | Arg | Asp | Ser | Phe | Phe | His | Ala | Asp | Met | His | Pro | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Ile | Phe | Val | Ser | Tyr | Glu | His | Pro | Glu | Asp | Pro | Lys | Tyr | Ile | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Asp | Cys | Gly | Ile | Val | Gly | Ser | Leu | Asn | Lys | Glu | Asp | Lys | Arg | Tyr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Ala | Glu | Asn | Phe | Ile | Ala | Phe | Phe | Asn | Arg | Asp | Tyr | Arg | Lys | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Glu | Leu | His | Val | Asp | Ser | Gly | Trp | Val | Pro | Pro | Asp | Thr | Asn | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Glu | Glu | Phe | Glu | Phe | Ala | Ile | Arg | Thr | Val | Cys | Glu | Pro | Ile | Phe | Glu |
| | 370 | | | | | 375 | | | | | 380 | | | | |

Lys Pro Leu Ser Glu Ile Ser Phe Gly His Val Leu Leu Asn Leu Phe
 385 390 395 400
 Asn Thr Ala Arg Arg Phe Asn Met Glu Val Gln Pro Gln Leu Val Leu
 405 410 415
 Leu Gln Lys Thr Leu Leu Tyr Val Glu Gly Val Gly Arg Gln Leu Tyr
 420 425 430
 Pro Gln Leu Asp Leu Trp Lys Thr Ala Lys Pro Phe Leu Glu Ser Trp
 435 440 445
 Ile Lys Asp Gln Val Gly Ile Pro Ala Leu Val Arg Ser Leu Lys Glu
 450 455 460
 Lys Gly Pro Phe Trp Ile Glu Lys Met Pro Glu Ile Pro Glu Leu Val
 465 470 475 480
 Tyr Asp Ser Leu Arg Gln Ser Lys Asn Leu Gln His Ser Met Asp Lys
 485 490 495
 Ile Ala His Glu Leu Gln Ser Ser Arg Val Arg Gln Gly Gln Ser Arg
 500 505 510
 Tyr Leu Phe Gly Ile Gly Ala Thr Leu Leu Ile Ser Gly Thr Leu Leu
 515 520 525
 Leu Ile Asn Arg Pro Asp Trp Glu Met Met Pro Ala Trp Ile Met Ala
 530 535 540
 Ala Gly Val Val Val Trp Leu Ala Gly Trp Arg Lys Thr Arg
 545 550 555

<210> 7705

<211> 260

<212> PRT

<213> Enterobacter cloacae

<400> 7705

Ser Val Asn Met Ala Val Asp Asp Thr Gln Pro Leu Ile Ala His Leu
 1 5 10 15
 Ile Glu Leu Arg Lys Arg Leu Leu Asn Cys Ile Ile Ala Val Phe Leu
 20 25 30
 Ile Phe Leu Cys Leu Val Tyr Phe Ala Asn Asp Ile Tyr Gln Val Val
 35 40 45
 Ser Ala Pro Leu Ile Lys Gln Met Pro Leu Gly Ala Thr Met Ile Ala
 50 55 60
 Thr Asp Val Ala Ser Pro Phe Phe Thr Pro Ile Lys Leu Thr Phe Trp
 65 70 75 80
 Val Ser Leu Ile Ala Ser Ala Pro Val Ile Leu Tyr Gln Val Trp Ala
 85 90 95
 Phe Val Ala Pro Ala Leu Tyr Arg His Glu Arg Lys Leu Val Ile Pro
 100 105 110
 Leu Leu Val Ser Ser Ser Leu Leu Phe Tyr Ile Gly Met Ala Phe Ala
 115 120 125
 Tyr Phe Val Val Phe Pro Leu Ala Phe Gly Phe Leu Thr His Thr Ala
 130 135 140
 Pro Glu Gly Val Gln Val Ser Thr Asp Ile Ala Ser Tyr Leu Ser Phe
 145 150 155 160
 Val Met Ala Leu Phe Met Ala Phe Gly Val Ala Phe Glu Val Pro Val
 165 170 175
 Ala Ile Val Leu Leu Cys Trp Val Gly Val Thr Thr Pro Asp Asp Leu
 180 185 190
 Arg Lys Lys Arg Pro Tyr Ile Leu Val Gly Ala Phe Val Val Gly Met
 195 200 205
 Leu Leu Thr Pro Pro Asp Val Phe Ser Gln Thr Leu Leu Ala Ile Pro
 210 215 220
 Met Tyr Cys Leu Phe Glu Val Gly Val Phe Phe Ala Arg Phe Tyr Val
 225 230 235 240
 Gly Lys Gly Arg Thr Arg Asp Glu Glu Asp Glu Pro Ser Glu Glu Thr
 245 250 255

Thr Lys Glu

260

<210> 7706

<211> 106

<212> PRT

<213> Enterobacter cloacae

<400> 7706

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Cys | Val | Ile | Tyr | Glu | Glu | Phe | Ser | Met | Glu | Leu | Lys | Asp | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Phe | Glu | Leu | Leu | Ser | Ser | Leu | Glu | Gln | Ile | Ile | Phe | Lys | Asp | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Pro | Thr | Val | Thr | Leu | Asn | Gln | Lys | Ser | Asn | Pro | Phe | Ser | Glu | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Glu | Arg | Leu | Arg | Lys | Gly | Ser | Gly | Leu | Lys | Thr | Asp | Glu | Phe | Ala | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Met | Gly | Val | Ser | Val | Ala | Met | Val | Leu | Glu | Trp | Glu | Ser | Lys | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Lys | Pro | Thr | Pro | Ala | Glu | Leu | Lys | Leu | Met | Arg | Leu | Ile | Gln | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Pro | Asp | Leu | Arg | Lys | Gln | Leu | Ala | | | | | | | |
| | | | 100 | | | | | 105 | | | | | | | |

<210> 7707

<211> 182

<212> PRT

<213> Enterobacter cloacae

<400> 7707

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Arg | Gln | Gly | Phe | Gly | Met | Leu | Ala | Pro | Arg | Thr | Met | Gly | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ile | Met | Gln | Ala | Trp | Tyr | Leu | Leu | Tyr | Cys | Lys | Arg | Gly | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Arg | Ala | Gln | Glu | His | Leu | Glu | Arg | Gln | Ser | Val | Asn | Cys | Leu | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Val | Ile | Thr | Leu | Glu | Lys | Met | Gln | Arg | Gly | Arg | Arg | Thr | Thr | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Glu | Pro | Leu | Phe | Pro | Asn | Tyr | Leu | Phe | Val | Glu | Phe | Asp | Pro | Glu |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Val | Ile | His | Thr | Thr | Thr | Ile | Ser | Ala | Thr | Arg | Gly | Val | Ser | His | Phe |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Val | Arg | Phe | Gly | Ala | His | Pro | Ala | Arg | Val | Pro | Ser | Ser | Val | Ile | His |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Gln | Leu | Ser | Val | Tyr | Gln | Gln | Pro | Glu | Asp | Ile | Thr | Asp | Pro | Glu | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Tyr | Ala | Gly | Asp | Ser | Val | Val | Ile | Thr | Glu | Gly | Ala | Phe | Glu | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Gln | Ala | Ile | Phe | Ala | Glu | Pro | Asp | Gly | Glu | Ala | Arg | Ser | Met | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Leu | Asn | Leu | Leu | Asn | Lys | Glu | Val | Leu | Gln | Ser | Val | Lys | Asn | Thr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Asp | Phe | Arg | Lys | Val | | | | | | | | | | | |
| | | | 180 | | | | | | | | | | | | |

<210> 7708

<211> 287

<212> PRT

<213> Enterobacter cloacae

<400> 7708

Pro Gly Val Tyr Ile Tyr Leu Cys Ala Asn Pro Phe Ile Gly Thr Glu
 1 5 10
 Asn Ala Met Thr Glu Lys Thr Gly Phe Ala Pro Ala Ala Pro His
 20 25 30
 Ala Ser Thr Ile Val Ser Thr Pro Glu Glu Ala Ile Thr Ala Gly Glu
 35 40 45
 Thr Ser Ile Pro Ser Gln Gly Glu Asn Met Pro Ala Tyr His Ala Arg
 50 55 60
 Pro Lys Ser Ala Asp Gly Pro Leu Pro Ile Val Ile Val Val Gln Glu
 65 70 75 80
 Ile Phe Gly Val His Glu His Ile Arg Asp Leu Cys Arg Arg Leu Ala
 85 90 95
 Leu Glu Gly Tyr Leu Ala Val Ala Pro Glu Leu Tyr Phe Arg Gln Gly
 100 105 110
 Asp Pro Asn Asp Tyr Ser Asp Ile Pro Thr Leu Phe Ser Asn Leu Val
 115 120 125
 Ser Lys Val Pro Asp Ala Gln Val Leu Ala Asp Leu Asp His Val Ala
 130 135 140
 Ser Trp Ala Ala Arg Asn Gly Gly Asp Pro His Arg Leu Met Val Thr
 145 150 155 160
 Gly Phe Cys Trp Gly Gly Arg Ile Ser Trp Leu Tyr Ala Ala His Asn
 165 170 175
 Pro Gln Leu Lys Ala Ala Val Ala Trp Tyr Gly Lys Leu Val Gly Glu
 180 185 190
 Lys Thr Leu Asn Ser Pro Lys His Pro Val Asp Ile Ala Thr Asp Leu
 195 200 205
 Asn Ala Pro Val Leu Gly Leu Tyr Gly Gly Gln Asp Thr Gly Ile Pro
 210 215 220
 Leu Asp Thr Val Glu Thr Met Arg His Ala Leu Arg Ala Ala Asn Ala
 225 230 235 240
 Lys Ala Glu Ile Val Val Tyr Pro Asp Ala Gly His Ala Phe Asn Ala
 245 250 255
 Asp Tyr Arg Pro Ser Tyr His Ala Glu Ser Ala Lys Asp Gly Trp Gln
 260 265 270
 Arg Met Leu Ala Trp Phe Ser Gln Tyr Gly Gly Lys Lys Ala
 275 280 285

<210> 7709

<211> 148

<212> PRT

<213> Enterobacter cloacae

<400> 7709

Gly Cys Met Ala Val Arg Ile Pro Ala Phe Arg Leu Ile Pro Ser Arg
 1 5 10 15
 Pro Cys Ala Thr Arg Cys Gly Arg Gln Thr Arg Arg Pro Lys Ser Trp
 20 25 30
 Cys Thr Arg Met Arg Asp Thr Arg Leu Met Pro Ile Ile Val Arg Ala
 35 40 45
 Ile Thr Arg Asn Pro Arg Lys Met Ala Gly Arg Glu Cys Trp Arg Gly
 50 55 60
 Ser Ala Ser Thr Ala Gly Arg Lys Arg Asn Thr Lys Ser Pro Val Ala
 65 70 75 80
 Ala Thr Pro Thr Gly Gln Ser Ser Pro Thr Thr Pro Asp Ala Asn Ser
 85 90 95
 Ala Pro Pro Ala Pro Cys Ser Pro Ala Pro Arg Gly Phe Gln Ala Ser
 100 105 110
 Arg Glu Phe Ser Gly Arg Ser Pro Gly Leu Pro Thr Asp Val Pro Pro
 115 120 125
 Gly Cys Ala Gly Pro Leu Phe Ala Ala Ala Ile Gln Ser Thr Pro Arg
 130 135 140

Leu Ala Arg
145

<210> 7710

<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 7710

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Thr | Phe | Met | Ile | Glu | Ile | Lys | His | Leu | Lys | Thr | Leu | Gln | Ala | Leu |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Arg | Asn | Cys | Gly | Ser | Leu | Ala | Ala | Ala | Ala | Ala | Thr | Leu | His | Gln | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Ser | Ala | Leu | Ser | His | Gln | Phe | Ser | Asp | Leu | Glu | Gln | Arg | Leu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Arg | Leu | Phe | Val | Arg | Lys | Ser | Gln | Pro | Leu | Arg | Phe | Thr | Pro | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Glu | Ile | Leu | Leu | Gln | Leu | Ala | Asn | Gln | Val | Leu | Pro | Gln | Ile | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Ala | Leu | Gln | Ser | Cys | Asn | Glu | Pro | Gln | Gln | Thr | Thr | Leu | Arg | Ile |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Ile | Glu | Cys | His | Ser | Cys | Ile | Gln | Trp | Leu | Thr | Pro | Ala | Leu | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Phe | Arg | Gln | Lys | Trp | Pro | Gln | Val | Glu | Met | Asp | Phe | Lys | Ser | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Val | Thr | Phe | Asp | Pro | Gln | Pro | Ser | Leu | Gln | Gln | Gly | Glu | Leu | Asp | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Met | Thr | Ser | Asp | Ile | Leu | Pro | Arg | Ser | Gly | Leu | His | Tyr | Ser | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Met | Phe | Asp | Phe | Glu | Val | Arg | Leu | Val | Leu | Ala | Pro | Asp | His | Pro | Leu |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ala | Ala | Lys | Thr | Arg | Ile | Thr | Pro | Glu | Asp | Leu | Ala | Thr | Glu | Thr | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Ile | Tyr | Pro | Val | Gln | Arg | Ser | Arg | Leu | Asp | Ile | Trp | Arg | His | Phe |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Gln | Pro | Ala | Gly | Ile | Ser | Pro | Gln | Leu | Lys | Ser | Val | Asp | Asn | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Leu | Leu | Ile | Gln | Met | Val | Ala | Ala | Arg | Met | Gly | Ile | Ala | Ala | Leu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Pro | His | Trp | Val | Val | Glu | Thr | Val | Glu | Arg | Gln | Gly | Leu | Val | Val | Thr |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Lys | Thr | Leu | Gly | Glu | Gly | Leu | Trp | Ser | Arg | Leu | Tyr | Ala | Ala | Val | Arg |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Asp | Gly | Glu | Gln | Arg | Gln | Pro | Ile | Thr | Glu | Ala | Phe | Ile | Arg | Ser | Ala |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Arg | Asn | His | Ala | Cys | Asp | His | Leu | Pro | Phe | Val | Arg | Ser | Ala | Glu | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Ser | Gly | Asp | Val | Pro | Thr | Ala | Lys | Pro | Gly | Ser | Pro | Phe | Pro | Gln |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |

<210> 7711

<211> 502

<212> PRT

<213> Enterobacter cloacae

<400> 7711

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Pro | Pro | Gly | Tyr | Val | Phe | Leu | Val | Pro | Arg | Gly | Gly | Met | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Ile | Pro | Gly | Asp | Glu | Leu | Tyr | Thr | Leu | Leu | His | Ala | Ala | Leu | Lys |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Lys | Arg | Gly | Thr | Glu | Thr | Leu | Gln | Arg | Ala | Leu | Tyr | Leu | Ala | Leu | Arg | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Glu | Ala | Ile | Leu | Cys | Gly | Arg | Leu | Arg | Ser | Gly | Ser | His | Leu | Pro | Gly | | |
| | | 50 | | | 55 | | | | | | 60 | | | | | | |
| Ser | Arg | Thr | Leu | Ala | His | Gln | Ile | Ser | Val | Ser | Arg | Asn | Thr | Val | Asn | | |
| 65 | | | | | 70 | | | 75 | | | | | | 80 | | | |
| Ala | Ala | Leu | Asp | Gln | Leu | Thr | Leu | Glu | Gly | Tyr | Leu | Leu | Arg | Ser | Arg | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Gln | Gly | Thr | Arg | Val | Gly | Gln | Phe | Ala | Pro | Arg | Thr | Ile | Ala | Arg | Thr | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Leu | Pro | Asp | Pro | Asp | Val | Arg | Leu | Thr | Lys | Arg | Val | Ala | Arg | Leu | Pro | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ala | Pro | Val | Pro | Arg | Asp | Thr | Pro | Val | Met | Ala | Phe | Thr | Pro | Gly | Thr | | |
| | | 130 | | | 135 | | | | | | 140 | | | | | | |
| Pro | Ala | Ile | Asn | Tyr | Phe | Pro | Leu | Pro | Leu | Trp | Arg | Arg | Leu | Tyr | Asp | | |
| 145 | | | | | 150 | | | 155 | | | | | | 160 | | | |
| Arg | Val | Leu | Arg | Glu | Gly | Ser | Ala | Leu | Leu | Gly | Tyr | Gly | Asp | Pro | | | |
| | | | | 165 | | | 170 | | | | | | 175 | | | | |
| Ala | Gly | Glu | Pro | Ser | Leu | Arg | Ala | Ala | Ile | Ala | Arg | His | Leu | Ala | Leu | | |
| | | 180 | | | | 185 | | | | | | 190 | | | | | |
| Ser | Arg | Gly | Ile | Asp | Cys | Asp | Ala | Ser | Gln | Ile | Val | Ile | Thr | Glu | Gly | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Ala | Leu | Glu | Gly | Val | Asn | Leu | Cys | Thr | Met | Leu | Leu | Ser | Glu | Pro | Gly | | |
| | | 210 | | | 215 | | | | 220 | | | | | | | | |
| Asp | Val | Ala | Trp | Val | Glu | Asn | Pro | Gly | Tyr | Ser | Gly | Ala | Lys | Ser | Ala | | |
| 225 | | | | | 230 | | | 235 | | | | | | 240 | | | |
| Phe | Val | Lys | Thr | Gly | Leu | Ala | Met | Thr | Gly | Ile | Pro | Val | Asp | Asp | Glu | | |
| | | | | 245 | | | 250 | | | | | | 255 | | | | |
| Gly | Met | Cys | Trp | Glu | Gly | Leu | Cys | Ala | Pro | Ser | Pro | Thr | Leu | Ile | Phe | | |
| | | 260 | | | | 265 | | | | | | 270 | | | | | |
| Thr | Ser | Pro | Ser | His | Gln | Phe | Pro | Tyr | Gly | Ser | Val | Leu | Ser | Ala | Arg | | |
| | | 275 | | | | 280 | | | | | | 285 | | | | | |
| Arg | Arg | Leu | Ala | Leu | Leu | Glu | Leu | Ala | Arg | Gln | His | Asn | Ala | Trp | Ile | | |
| | | 290 | | | | 295 | | | | 300 | | | | | | | |
| Ile | Glu | Asp | Asp | Tyr | Asp | Ser | Glu | Phe | Arg | Tyr | Thr | Gly | Glu | Pro | Val | | |
| 305 | | | | | 310 | | | 315 | | | | | | 320 | | | |
| Pro | Ala | Met | Leu | Gly | Met | Val | Asn | Asn | Ala | Pro | Val | Val | Tyr | Leu | Gly | | |
| | | 325 | | | | | | 330 | | | | | | 335 | | | |
| Thr | Phe | Ser | Lys | Thr | Leu | Phe | Pro | Ser | Leu | Arg | Met | Gly | Phe | Met | Val | | |
| | | 340 | | | | 345 | | | | | | 350 | | | | | |
| Leu | Pro | Pro | Ala | Leu | Ala | Lys | Ala | Ala | Arg | Pro | Ala | Ile | Gly | Ser | Leu | | |
| | | 355 | | | | 360 | | | | | | 365 | | | | | |
| Leu | Arg | Gly | Gly | His | Arg | Ala | Glu | Gln | Arg | Thr | Leu | Ala | Leu | Phe | Ile | | |
| | | 370 | | | | 375 | | | 380 | | | | | | | | |
| Glu | Glu | Gly | His | Tyr | Ala | Arg | His | Leu | Ala | Ala | Met | Arg | Arg | Leu | Tyr | | |
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 <213> Enterobacter cloacae

<400> 7712

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      20      25      30
Val Ser Ala Thr Ser Leu Ala Gln Ile Ala Gln Ala Gly Val Thr
      35      40      45
Arg Gly Ala Ile Tyr Trp His Phe Lys Asp Lys Ser Asp Leu Phe Gly
      50      55      60
Glu Ile Trp Glu Leu Ser Glu Ser Ser Ile Ser Asp Leu Glu Ser Glu
      65      70      75      80
Tyr Arg Ala Lys Phe Pro His Asp Pro Leu Ser Val Leu Arg Glu Ile
      85      90      95
Leu Val Tyr Ile Leu Glu Ala Thr Val Val Glu Glu Arg Arg Arg Leu
      100      105      110
Met Met Glu Ile Ile Phe His Lys Cys Glu Phe Val Gly Glu Met Ala
      115      120      125
Val Val Gln Gln Ala Gln Arg Asp Leu Cys Leu Glu Ser Tyr Asp Arg
      130      135      140
Ile Glu Gln Val Leu Thr Glu Cys Met Gln Ala Lys Met Leu Pro Ala
      145      150      155      160
Thr Leu Leu Thr Arg Arg Ala Ala Ile Leu Met Arg Ser Tyr Ile Ser
      165      170      175
Gly Leu Met Glu Asn Trp Leu Phe Ala Pro Glu Ser Phe Asp Leu Arg
      180      185      190
Ser Glu Ala Arg Ser Tyr Val Asp Ile Phe Leu Glu Met Cys Gln Leu
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Cys Pro Thr Leu Gln Ser Lys His His Pro Arg Ser Thr
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<400> 7713

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Leu Lys Asn Ser Ile Lys Ser Ile Gln Asp Tyr Pro Lys Pro Gly Ile
      35      40      45
Leu Phe Arg Asp Val Thr Ser Leu Leu Glu Asp Pro Lys Ala Tyr Ala
      50      55      60
Leu Ser Ile Glu Leu Leu Val Glu Arg Tyr Lys Asn Ala Gly Ile Thr
      65      70      75      80
Lys Val Val Gly Thr Glu Ala Arg Gly Phe Leu Phe Gly Ala Pro Val
      85      90      95
Ala Leu Ala Met Gly Val Gly Phe Val Pro Val Arg Lys Pro Arg Lys
      100      105      110
Leu Pro Arg Glu Thr Ile Ala Glu Ser Tyr Glu Leu Glu Tyr Gly Thr
      115      120      125
Asp Gln Leu Glu Ile His Val Asp Ala Ile Lys Pro Gly Asp Lys Val
      130      135      140
Leu Val Val Asp Asp Leu Leu Ala Thr Gly Gly Thr Ile Glu Ala Thr

```


| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Val | Lys | Leu | Ile | Arg | Arg | Leu | Gly | Gly | Glu | Val | Thr | Asp | Ala | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Ile | Ile | Asn | Leu | Phe | Asp | Leu | Gly | Gly | Glu | Gln | Arg | Leu | Glu | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | |
| Gly | Ile | Thr | Ser | Tyr | Ser | Leu | Val | Pro | Phe | Pro | Gly | His | | |
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<213> Enterobacter cloacae

<400> 7714

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| Arg | Glu | Arg | Arg | Glu | Lys | Pro | Met | Phe | Gly | Gly | Lys | Gly | Gly | Leu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Leu | Met | Lys | Gln | Ala | Gln | Gln | Met | Gln | Glu | Lys | Met | Gln | Lys | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Glu | Glu | Ile | Ala | Gln | Leu | Glu | Val | Thr | Gly | Glu | Ser | Gly | Ala | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Val | Lys | Val | Thr | Ile | Asn | Gly | Ala | His | Asn | Cys | Arg | Arg | Val | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ile | Asp | Pro | Ser | Leu | Leu | Glu | Asp | Asp | Lys | Glu | Met | Leu | Glu | Asp | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Ala | Ala | Ala | Phe | Asn | Asp | Ala | Ala | Arg | Arg | Ile | Asp | Glu | Thr | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Glu | Lys | Met | Ala | Ser | Val | Ser | Ser | Gly | Met | Gln | Leu | Pro | Pro | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Lys | Met | Pro | Phe | | | | | | | | | | | |
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<210> 7715

<211> 658

<212> PRT

<213> Enterobacter cloacae

<400> 7715

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| His | Ser | Pro | Pro | Leu | Ile | His | Leu | Pro | Ala | Leu | Gln | Ser | Leu | Pro | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Tyr | Gln | Val | Leu | Ala | Arg | Lys | Trp | Arg | Pro | Gln | Thr | Phe | Ala | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Val | Gly | Gln | Glu | His | Val | Leu | Thr | Ala | Leu | Ala | Asn | Gly | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Arg | Ile | His | His | Ala | Tyr | Leu | Phe | Ser | Gly | Thr | Arg | Gly | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Lys | Thr | Ser | Ile | Ala | Arg | Leu | Leu | Ala | Lys | Gly | Leu | Asn | Cys | Glu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Thr | Gly | Ile | Thr | Ala | Thr | Pro | Cys | Gly | Val | Cys | Asp | Asn | Cys | Arg | Glu |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Ile | Glu | Gln | Gly | Arg | Phe | Val | Asp | Leu | Ile | Glu | Ile | Asp | Ala | Ala | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Thr | Lys | Val | Glu | Asp | Thr | Arg | Asp | Leu | Leu | Asp | Asn | Val | Gln | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Pro | Ala | Arg | Gly | Arg | Phe | Lys | Val | Tyr | Leu | Ile | Asp | Glu | Val | His |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Met | Leu | Ser | Arg | His | Ser | Phe | Asn | Ala | Leu | Leu | Lys | Thr | Leu | Glu | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Pro | Pro | Ala | His | Val | Lys | Phe | Leu | Leu | Ala | Thr | Thr | Asp | Pro | Gln | Lys |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Pro | Val | Thr | Ile | Leu | Ser | Arg | Cys | Leu | Gln | Phe | His | Leu | Lys | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |

Leu Asp Val Glu Gln Ile Arg Ala Gln Leu Glu His Ile Leu Asp Glu
 195 200 205
 Glu Asn Ile Val His Glu Pro Arg Ala Leu Gln Leu Leu Ala Arg Ala
 210 215 220
 Ala Asp Gly Ser Leu Arg Asp Ala Leu Ser Leu Thr Asp Gln Ala Ile
 225 230 235 240
 Ala Ser Gly Asp Gly Lys Leu Ser Thr Asp Ala Val Ser Thr Met Leu
 245 250 255
 Gly Thr Leu Asp Asp Asp Gln Ala Leu Ser Leu Ile Glu Ala Met Ile
 260 265 270
 Ala Ala Asn Gly Glu Arg Val Met Thr Leu Val Asn Asp Ala Ala Ala
 275 280 285
 Arg Gly Ile Glu Trp Glu Ala Leu Leu Val Glu Met Leu Ser Leu Leu
 290 295 300
 His Arg Val Ala Met Leu Gln Leu Ser Pro Ser Ala Ile Gly Ala Asp
 305 310 315 320
 Met Ala Thr Ile Glu Gln Arg Met Arg Glu Leu Ala Arg Thr Val Pro
 325 330 335
 Pro Ala Asp Val Gln Leu Tyr Tyr Gln Thr Leu Leu Ile Gly Arg Lys
 340 345 350
 Glu Leu Pro Phe Ala Pro Asp Arg Arg Met Gly Val Glu Met Thr Leu
 355 360 365
 Leu Arg Ala Leu Ala Phe His Pro Arg Lys Pro Leu Pro Glu Pro Glu
 370 375 380
 Thr Pro Arg Gln Ser Phe Ala Pro Val Ala Pro Thr Ala Val Met Ser
 385 390 395 400
 Pro Gln Gln Val Pro Pro Gln Pro Ala Ser Pro Pro Pro Gln Asn Val
 405 410 415
 Pro Leu Ser Asp Ala Thr Ser Ser Val Leu Ala Ala Arg Ser Gln Leu
 420 425 430
 Gln Arg Ala Gln Gly Ala Thr Lys Pro Lys Lys Ser Glu Pro Ala Ala
 435 440 445
 Pro Ala Arg Ala Arg Pro Val Asn Asn Ala Ala Leu Glu Arg Leu Ala
 450 455 460
 Ser Val Thr Glu Arg Val Gln Ser Arg Pro Ala Pro Ser Ala Leu Glu
 465 470 475 480
 Gln Lys Ala Pro Ala Lys Glu Glu Ala Tyr Arg Trp Lys Ala Thr Thr
 485 490 495
 Val Val Glu Thr Val Lys Glu Val Val Ala Thr Pro Lys Ala Leu Lys
 500 505 510
 Lys Ala Leu Glu His Glu Lys Thr Pro Glu Leu Ser Ala Lys Leu Ala
 515 520 525
 Glu Glu Ser Ile Glu Arg Asp Ala Trp Ala Ala Glu Val Ser Lys Leu
 530 535 540
 Gln Leu Pro Lys Leu Val Glu Gln Val Ala Leu Asn Ala Trp Lys Glu
 545 550 555 560
 Gln Asp Gly Asn Gln Val Arg Leu His Leu Arg Pro Gly Gln Arg His
 565 570 575
 Leu Asn Ser Pro Gly Ala Gln Lys Ala Leu Ala Glu Ala Leu Thr Ala
 580 585 590
 Leu Gln Gly Val Pro Val Glu Leu Thr Ile Ile Glu Asp Asp Asn Pro
 595 600 605
 Ala Val Lys Thr Pro Leu Glu Trp Arg Gln Ala Ile Tyr Glu Glu Lys
 610 615 620
 Leu Ala Gln Ala Arg Glu Ala Ile Ile Ala Asp Asn Asn Ile Gln Thr
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 Leu Arg Arg Tyr Phe Asp Ala Asp Leu Asp Glu Glu Ser Ile Arg Pro
 645 650 655
 Ile

<210> 7716
 <211> 625
 <212> PRT
 <213> Enterobacter cloacae

<400> 7716

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| Met | Lys | Gly | Gln | Glu | Thr | Arg | Gly | Phe | Gln | Ser | Glu | Val | Lys | Gln | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | His | Leu | Met | Ile | His | Ser | Leu | Tyr | Ser | Asn | Lys | Glu | Ile | Phe | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Arg | Glu | Leu | Ile | Ser | Asn | Ala | Ser | Asp | Ala | Ala | Asp | Lys | Leu | Arg | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ala | Leu | Ser | Asn | Pro | Asp | Leu | Tyr | Glu | Gly | Asp | Gly | Glu | Leu | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Arg | Val | Ser | Phe | Asn | Lys | Glu | Asn | Arg | Thr | Leu | Thr | Ile | Ala | Asp |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Asn | Gly | Ile | Gly | Met | Asn | Arg | Asp | Glu | Val | Ile | Asp | His | Leu | Gly | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ile | Ala | Lys | Ser | Gly | Thr | Lys | Ala | Phe | Leu | Glu | Ser | Met | Gly | Ser | Asp |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Gln | Ala | Lys | Asp | Ser | Gln | Leu | Ile | Gly | Gln | Phe | Gly | Val | Gly | Phe | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Phe | Ile | Val | Ala | Asp | Lys | Val | Thr | Val | Arg | Thr | Arg | Ala | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Asp | Ser | Ala | Glu | Asn | Gly | Val | Leu | Trp | Glu | Ser | Lys | Gly | Glu | Gly |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Glu | Tyr | Thr | Val | Asp | Asp | Ile | Thr | Lys | Ala | Asp | Arg | Gly | Thr | Glu | Ile |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Thr | Leu | His | Leu | Arg | Glu | Gly | Glu | Tyr | Asp | Phe | Leu | Asn | Asp | Trp | Arg |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Val | Arg | Ser | Ile | Ile | Ser | Lys | Tyr | Ser | Asp | His | Ile | Ala | Leu | Pro | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Ile | Glu | Lys | Gln | Glu | Glu | Lys | Asp | Gly | Glu | Thr | Val | Val | Ser | Trp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Lys | Ile | Asn | Lys | Ala | Gln | Ala | Leu | Trp | Thr | Arg | Asn | Lys | Ala | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Ile | Lys | Asp | Asp | Glu | Tyr | Asn | Glu | Phe | Tyr | Lys | His | Ile | Ala | His | Asp |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Phe | Thr | Asp | Pro | Leu | Thr | Trp | Ser | His | Asn | Arg | Val | Glu | Gly | Lys | Gln |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Glu | Tyr | Thr | Ser | Leu | Leu | Tyr | Ile | Pro | Ala | Gln | Ala | Pro | Trp | Asp | Met |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Trp | Asn | Arg | Asp | His | Lys | His | Gly | Leu | Lys | Leu | Tyr | Val | Gln | Arg | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Phe | Ile | Met | Asp | Asp | Ala | Glu | Gln | Phe | Met | Pro | Asn | Tyr | Leu | Arg | Phe |
| 305 | | | | 310 | | | | | 315 | | | | | | 320 |
| Val | Arg | Gly | Leu | Ile | Asp | Ser | Asn | Asp | Leu | Pro | Leu | Asn | Val | Ser | Arg |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Glu | Ile | Leu | Gln | Asp | Ser | Thr | Val | Thr | Arg | Asn | Leu | Arg | Asn | Ala | Leu |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Thr | Lys | Arg | Ala | Leu | Gln | Met | Leu | Glu | Lys | Leu | Ala | Lys | Asp | Asp | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Glu | Lys | Tyr | Gln | Thr | Phe | Trp | Lys | Gln | Phe | Gly | Leu | Val | Leu | Lys | Glu |
| | 370 | | | | | 375 | | | | 380 | | | | | |
| Gly | Pro | Ala | Glu | Asp | Thr | Ala | Asn | Val | Glu | Ala | Ile | Ala | Lys | Leu | Leu |
| 385 | | | | 390 | | | | | 395 | | | | | | 400 |
| Arg | Phe | Ala | Ser | Thr | His | Asn | Asp | Ser | Ser | Ala | Gln | Thr | Val | Ser | Leu |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Glu | Glu | Tyr | Val | Ser | Arg | Met | Lys | Glu | Gly | Gln | Glu | Lys | Ile | Tyr | Tyr |
| | | 420 | | | | | 425 | | | | | 430 | | | |
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225

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<212> PRT

<213> Enterobacter cloacae

<400> 7718

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| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Leu | Arg | Ala | Gly | Phe | Val | Leu | Pro | Phe | Pro | Ala | Arg | Ile | Leu | Cys | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Gln | Thr | Met | Lys | Phe | Pro | Gly | Lys | Arg | Lys | Ser | Lys | His | Tyr | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Pro | Val | Asp | Ala | Arg | Asp | Pro | Leu | Leu | Gln | Gln | Ile | Gln | Gln | Glu | Ser |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Glu | Thr | Ser | Ala | Ala | Trp | Val | Val | Gly | Ile | Asp | Gln | Thr | Leu | Val | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Glu | Ala | Lys | Val | Asp | Asp | Ala | Phe | Val | Ala | Arg | Tyr | Gly | Leu | Ser |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ala | Gly | His | Ser | Leu | Val | Ile | Glu | Asp | Val | Ala | Glu | Ala | Leu | Tyr | |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Glu | Leu | Val | Arg | Glu | Asn | Leu | Ile | Thr | His | Gln | Phe | Ala | Gly | Gly |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Thr | Ile | Gly | Asn | Thr | Met | His | Asn | Tyr | Ser | Val | Leu | Ala | Asp | Asp | Arg |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Ser | Val | Leu | Leu | Gly | Val | Met | Cys | Ser | Asn | Ile | Glu | Ile | Gly | Gly | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Tyr | Arg | Tyr | Leu | Cys | Asn | Thr | Ser | Ser | Arg | Thr | Asp | Leu | Asn | Tyr |
| | | | | 165 | | | | | | 170 | | | | 175 | |
| Leu | Gln | Gly | Val | Asp | Gly | Pro | Ile | Gly | Arg | Cys | Phe | Thr | Leu | Ile | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Ser | Gly | Glu | Arg | Thr | Phe | Ala | Ile | Ser | Pro | Gly | His | Met | Asn | Lys |
| | | | 195 | | | 200 | | | | | | 205 | | | |
| Leu | Arg | Ala | Glu | Ser | Ile | Pro | Glu | Glu | Val | Ile | Ala | Gly | Ala | Ser | Ala |
| | | | 210 | | | 215 | | | | | 220 | | | | |
| Leu | Val | Leu | Thr | Ser | Tyr | Leu | Val | Arg | Cys | Lys | Pro | Gly | Glu | Pro | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Asp | Ala | Thr | Met | Lys | Ala | Ile | Glu | Tyr | Ala | Lys | Lys | Tyr | Asn | Val |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Val | Val | Leu | Thr | Leu | Gly | Thr | Lys | Phe | Val | Ile | Ala | Asp | Asn | Pro |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Glu | Trp | Trp | Gln | Ala | Phe | Leu | Lys | Glu | His | Val | Ser | Ile | Leu | Ala | Met |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Asn | Glu | Glu | Glu | Ala | Glu | Ala | Leu | Thr | Gly | Glu | Ser | Asp | Pro | Leu | Leu |
| | | | 290 | | | 295 | | | | | 300 | | | | |
| Ala | Ser | Asp | Lys | Ala | Leu | Asp | Trp | Val | Asp | Leu | Val | Leu | Cys | Thr | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Pro | Val | Gly | Leu | Tyr | Met | Ala | Gly | Phe | Thr | Glu | Glu | Glu | Ser | Lys |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Lys | Thr | Gln | His | Pro | Leu | Leu | Pro | Gly | Ala | Ile | Ala | Glu | Phe | Asn |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gln | Tyr | Glu | Phe | Ser | Arg | Ala | Met | Arg | His | Lys | Asp | Cys | Ile | Asn | Pro |
| | | | 355 | | | | 360 | | | | | 365 | | | |
| Leu | Arg | Ile | Phe | Ser | His | Ile | Ala | Pro | Tyr | Met | Gly | Gly | Pro | Glu | Lys |
| | | | 370 | | | 375 | | | | | 380 | | | | |
| Ile | Met | Asn | Thr | Asn | Gly | Ala | Gly | Asp | Gly | Ala | Leu | Ala | Ala | Leu | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| His | Asp | Ile | Thr | Ala | Asn | Ala | Tyr | His | Lys | Thr | Asn | Val | Pro | Asn | Ser |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ser | Lys | His | Thr | Phe | Asp | Trp | Leu | Thr | Tyr | Ser | Ser | Leu | Ala | Gln | Val |


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<210> 7719
<211> 1161
<212> PRT
<213> Enterobacter cloacae
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| <400> 7719 | | | | | | | | | | | | | | | |
| Ala 1 | Ser | Pro | Pro | Phe 5 | Tyr | Leu | Ile | Gly | Tyr 10 | Gly | Lys | Asn | Arg | Arg 15 | Pro |
| Phe | Pro | Ser | Tyr 20 | Tyr | Ser | Ala | Ser | Ala 25 | Gly | Arg | Asp | Ile 30 | Leu | His | Ala |
| Arg | Leu | Phe 35 | Pro | Val | Ile | Ser | His 40 | Ile | Thr | Phe | Thr 45 | Thr | Met | Leu | His |
| Ile | Asn 50 | Arg | Ser | Gln | His | Leu 55 | Val | Leu | Ala | Leu | Phe 60 | Leu | Ile | Leu | Leu |
| Phe 65 | Tyr | Phe | Ala | Ala | Ala 70 | Pro | Leu | Ser | Trp | Ala 75 | Arg | Ala | Asp | Asn | Gly 80 |
| Ser | Asp | Ile | Pro | Thr 85 | Arg | Ala | Asp | Val | Gln 90 | Ala | Gln | Leu | Asp | Thr 95 | Leu |
| Asn | Lys | Gln | Lys 100 | Asp | Leu | Ser | Ala | Leu 105 | Glu | Lys | Leu | Val | Gln 110 | Gln | Asp |
| Leu | Thr | Glu 115 | Thr | Leu | Glu | Thr | Leu 120 | Asp | Lys | Ile | Glu | Arg 125 | Ile | Lys | Ala |
| Glu | Thr 130 | Ala | Gln | Leu | Arg | Gln | Lys 135 | Val | Ala | Gln | Ala 140 | Pro | Glu | Asn | Met |
| Arg 145 | Lys | Ala | Thr | Glu 150 | Ala | Leu | Asn | Ala | Leu | Ser 155 | Asp | Val | Asp | Asn | Asp 160 |
| Asp | Glu | Thr | Arg | Lys 165 | Thr | Leu | Ala | Thr | Leu | Ser 170 | Leu | Arg | Gln | Leu | Glu 175 |
| Ser | Arg | Val | Ala 180 | Gln | Leu | Leu | Asp | Asp 185 | Leu | Gln | Thr | Ala | Gln 190 | Ser | Asp |
| Leu | Ser | Thr | Tyr 195 | Asn | Ser | Gln | Leu 200 | Val | Ser | Leu | Gln | Thr 205 | Gln | Pro | Glu |
| Arg | Val | Gln | Asn | Ala | Met | Tyr 215 | Ser | Ala | Ser | Gln | Gln 220 | Leu | Gln | Gln | Ile |
| Arg 225 | Asn | Arg | Leu | Asn | Gly 230 | Val | Thr | Val | Gly | Glu 235 | Gly | Ala | Leu | Arg | Pro 240 |
| Thr | Gln | Gln | Thr | Leu 245 | Leu | Asn | Ile | Gln | Gln | Thr | Leu | Leu | Asn | Ala | Glu 255 |
| Ile | Glu | Gln | Gln 260 | Arg | Lys | Ser | Leu | Glu 265 | Gly | Asn | Thr | Val | Leu | Gln | Asp |
| Ala | Leu | Gln | Lys 275 | Gln | Arg | Asp | Tyr 280 | Val | Thr | Ala | Asn | Ile 285 | Asn | Arg | Leu |
| Glu | His | Gln | Leu | Gln | Leu | Leu 295 | Gln | Glu | Ala | Val | Asn | Ser | Lys | Arg | Leu |
| Thr 305 | Leu | Thr | Glu | Lys 310 | Thr | Ala | Gln | Glu | Ala | Val | Ser | Pro | Asp | Glu | Thr 320 |
| Ala | Arg | Ile | Gln | Ala 325 | Asn | Pro | Leu | Val | Lys | Gln 330 | Glu | Leu | Glu | Ile | Asn |
| His | Gln | Leu | Ser 340 | Glu | Arg | Leu | Ile | Gln 345 | Ala | Thr | Glu | Asn | Gly 350 | Ser | Ala |
| Leu | Val | Gln | Gln 355 | Asn | Ile | Lys | Val 360 | Lys | Asn | Trp | Leu | Asp | Arg | Ala | Leu |
| Gln | Ala | Glu | Arg | Asn | Val | Lys | Glu | Gln | Ile | Ala | Val | Leu | Lys | Gly | Ser |

| 370 | | | | | 375 | | | | | 380 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Leu | Ser | Arg | Ile | Leu | Tyr | Gln | Gln | Gln | Gln | Thr | Leu | Pro | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Asp | Glu | Leu | Glu | Asp | Met | Thr | Asn | Arg | Ile | Ala | Asp | Leu | Arg | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Glu | Gln | Phe | Asp | Val | Asn | Gln | Gln | Arg | Asp | Ala | Leu | Phe | Gln | Ser | Asp |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Thr | Phe | Val | Ala | Lys | Val | Glu | Glu | Gly | His | Ser | Gly | Glu | Val | Asn | Ala |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Glu | Val | His | Asp | Ala | Leu | Leu | Gln | Val | Val | Asp | Met | Arg | Arg | Glu | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Leu | Asp | Gln | Leu | Asn | Lys | Gln | Leu | Gly | Asn | Gln | Leu | Met | Met | Ala | Ile |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asn | Leu | Gln | Ile | Asn | Gln | Gln | Gln | Leu | Val | Ser | Val | Ser | Lys | Ser | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Gln | Glu | Ile | Leu | Thr | Gln | Gln | Ile | Phe | Trp | Val | Asn | Ser | Asn | Lys | Pro |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Met | Asp | Trp | Asp | Trp | Phe | Lys | Ser | Phe | Pro | Glu | Thr | Leu | Lys | Ser | Gln |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ile | Lys | Ser | Met | Lys | Ile | Thr | Val | Asn | Trp | Glu | Lys | Ala | Trp | Pro | Ala |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Val | Met | Ile | Ala | Phe | Leu | Ala | Gly | Leu | Pro | Leu | Leu | Leu | Ile | Ala | Gly |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Val | Ile | Arg | Trp | Arg | Leu | Lys | Trp | Leu | Lys | Gln | Tyr | Gln | Ala | Lys | Leu |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Ala | Ser | Glu | Val | Gly | Gln | Leu | Arg | Asn | Asp | Ser | Gln | Leu | His | Thr | Pro |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Lys | Ala | Ile | Leu | Ile | Asp | Leu | Ile | Arg | Ala | Leu | Pro | Val | Cys | Leu | Leu |
| | | 595 | | | | 600 | | | | | 605 | | | | |
| Ile | Leu | Ala | Val | Gly | Leu | Ile | Leu | Leu | Thr | Met | Gln | Leu | Asn | Ile | Ser |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Asp | Leu | Leu | Trp | Ala | Phe | Ser | Lys | Lys | Leu | Ala | Leu | Phe | Trp | Leu | Val |
| 625 | | | | 630 | | | | | 635 | | | | | 640 | |
| Phe | Gly | Leu | Cys | Trp | Lys | Val | Leu | Glu | Lys | Asp | Gly | Val | Ala | Val | Arg |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| His | Phe | Asn | Met | Pro | Glu | Lys | Leu | Thr | Ser | His | Trp | Arg | Arg | Gln | Ile |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Val | Arg | Ile | Ser | Leu | Ala | Leu | Leu | Pro | Leu | His | Phe | Trp | Ser | Val | Val |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Ala | Glu | Leu | Ser | Pro | Leu | His | Leu | Met | Asp | Asp | Val | Leu | Gly | Gln | Leu |
| | | 690 | | | | 695 | | | | | 700 | | | | |
| Val | Ile | Met | Leu | Asn | Leu | Leu | Leu | Ile | Ala | Val | Leu | Met | Trp | Pro | Met |
| 705 | | | | 710 | | | | | 715 | | | | | 720 | |
| Cys | Arg | Asp | Ser | Trp | Arg | Asp | Lys | Glu | Ser | His | Asn | Leu | Arg | Leu | Val |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Thr | Val | Thr | Val | Leu | Ala | Ile | Ile | Pro | Leu | Ala | Met | Met | Val | Leu | Thr |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Ala | Thr | Gly | Tyr | Phe | Tyr | Thr | Thr | Leu | Arg | Leu | Ser | Gly | Arg | Trp | Ile |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Glu | Thr | Val | Tyr | Leu | Val | Ile | Val | Trp | Asn | Leu | Leu | Phe | Gln | Thr | Val |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Leu | Arg | Gly | Leu | Ser | Val | Ala | Ala | Arg | Arg | Ile | Ala | Tyr | Arg | Arg | Ala |
| 785 | | | | 790 | | | | | 795 | | | | | 800 | |
| Val | Ala | Arg | Arg | Gln | His | Gln | Val | Lys | Glu | Gly | Ala | Glu | Gly | Ala | Glu |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Pro | Gln | Glu | Glu | Pro | Thr | Ile | Ala | Leu | Glu | Gln | Val | Asn | Gln | Gln | Thr |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Met | Arg | Ile | Thr | Met | Leu | Val | Met | Ile | Ala | Leu | Phe | Ala | Val | Met | Phe |
| | | 835 | | | | | 840 | | | | 845 | | | | |
| Trp | Ala | Ile | Trp | Ser | Asp | Leu | Ile | Thr | Val | Phe | Ala | Tyr | Leu | Asp | Ser |
| | 850 | | | | | 855 | | | | | 860 | | | | |

Ile Thr Leu Trp Gln Tyr Asn Gly Thr Glu Ala Gly Ala Ala Val Met
 865 870 875 880
 Lys Ser Val Thr Met Gly Ser Leu Leu Phe Ala Leu Val Ser Ser Val
 885 890 895
 Val Ala Trp Ala Leu Ile Arg Asn Leu Pro Gly Leu Leu Glu Val Leu
 900 905 910
 Val Leu Ser Arg Leu Asn Leu Arg Gln Gly Ala Ser Tyr Ala Ile Thr
 915 920 925
 Thr Ile Leu Asn Tyr Val Ile Ile Ile Val Gly Ala Met Thr Val Phe
 930 935 940
 Gly Ser Leu Gly Val Ser Trp Asp Lys Leu Gln Trp Leu Ala Ala Ala
 945 950 955 960
 Leu Ser Val Gly Leu Gly Phe Gly Leu Gln Glu Ile Phe Gly Asn Phe
 965 970 975
 Val Ser Gly Leu Ile Ile Leu Phe Glu Arg Pro Val Arg Ile Gly Asp
 980 985 990
 Thr Val Thr Ile Gly Thr Phe Ser Gly Thr Val Ser Lys Ile Arg Ile
 995 1000 1005
 Arg Ala Thr Thr Ile Thr Asp Phe Asp Arg Lys Glu Val Ile Ile Pro
 1010 1015 1020
 Asn Lys Ala Phe Val Thr Glu Arg Leu Ile Asn Trp Ser Leu Ser Asp
 1025 1030 1035 1040
 Thr Thr Thr Arg Val Val Ile Arg Leu Gly Val Ala Tyr Gly Ser Asp
 1045 1050 1055
 Leu Asp Lys Val Lys Glu Val Leu Leu Glu Ala Ala Lys Ser His Pro
 1060 1065 1070
 Lys Val Met His Asp Pro Ala Pro Asp Val Phe Leu Thr Thr Phe Gly
 1075 1080 1085
 Pro Ser Thr Leu Asp His Glu Leu Arg Leu Tyr Val Arg Glu Leu Arg
 1090 1095 1100
 Asp Arg Ser Tyr Thr Val Asp Glu Leu Asn Arg Thr Ile Asp Arg Leu
 1105 1110 1115 1120
 Cys Arg Glu Asn Asn Ile Asn Ile Ala Phe Asn Gln Leu Glu Val His
 1125 1130 1135
 Leu Arg Asn Glu Lys Gly Asp Glu His Thr Glu Val Lys Arg Glu Ile
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 Lys Gly Asp Asp Pro Thr Pro Ala
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<212> PRT

<213> Enterobacter cloacae

<400> 7720

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 Pro Leu Leu Pro Thr Thr Pro Phe Ile Leu Leu Ala Ala Trp Cys Phe
 35 40 45
 Ala Arg Ser Ser Pro Arg Phe His His Trp Leu Leu Tyr Arg Ser Trp
 50 55 60
 Phe Gly Gly Tyr Leu Arg His Trp Gln Lys His Arg Ala Met Pro Pro
 65 70 75 80
 Gly Ala Lys Pro Arg Ala Ile Ala Phe Ile Leu Ile Thr Phe Ala Val
 85 90 95
 Ser Leu Trp Leu Val Lys Met Met Trp Val Arg Ile Leu Leu Leu Ala
 100 105 110
 Ile Leu Val Ser Leu Leu Leu Phe Met Trp Arg Ile Pro Val Val Asp
 115 120 125

Glu Lys Gln Gln Lys His
130 135

<210> 7721

<211> 206

<212> PRT

<213> Enterobacter cloacae

<400> 7721

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ala | Ile | Leu | Met | Gln | Thr | Ser | Pro | Leu | Leu | Thr | Gln | Leu | Met | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Arg | Cys | Leu | Pro | Gly | Val | Gly | Pro | Lys | Ser | Ala | Gln | Arg | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Phe | Thr | Leu | Leu | Gln | Arg | Asp | Arg | Ser | Gly | Gly | Met | Arg | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ala | Leu | Thr | Arg | Ala | Met | Ser | Glu | Ile | Gly | His | Cys | Ala | Asp | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Thr | Phe | Thr | Glu | Gln | Asp | Val | Cys | Asn | Ile | Cys | Thr | Asn | Pro | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Arg | Gln | Glu | Asn | Gly | Gln | Ile | Cys | Val | Val | Glu | Ser | Pro | Ala | Asp | Ile |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Tyr | Ala | Ile | Glu | Gln | Thr | Gly | Gln | Phe | Ser | Gly | Arg | Tyr | Phe | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Gly | His | Leu | Ser | Pro | Leu | Asp | Gly | Ile | Gly | Pro | Asp | Asp | Ile | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Asp | Arg | Leu | Glu | Gln | Arg | Leu | Glu | Ser | Glu | Thr | Ile | Lys | Glu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Leu | Ala | Thr | Asn | Pro | Thr | Val | Glu | Gly | Glu | Ala | Thr | Ala | Asn | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Ala | Glu | Leu | Cys | Ala | Gln | Tyr | Gly | Val | Asp | Ala | Ser | Arg | Ile | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| His | Gly | Val | Pro | Val | Gly | Gly | Glu | Leu | Glu | Met | Val | Asp | Gly | Thr | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Ser | His | Ser | Leu | Ala | Gly | Arg | His | Lys | Ile | Ile | Phe | | | |
| | | 195 | | | | | 200 | | | | | 205 | | | |

<210> 7722

<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 7722

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| Met | Ser | Gln | Ala | Lys | Thr | Gly | Ile | Leu | Leu | Ala | Asn | Leu | Gly | Thr | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Ala | Pro | Thr | Pro | Ala | Ala | Val | Lys | Arg | Tyr | Leu | Arg | Gln | Phe | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Asp | Thr | Arg | Val | Val | Asp | Thr | Pro | Arg | Leu | Leu | Trp | Trp | Pro | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Arg | Gly | Val | Ile | Leu | Pro | Ile | Arg | Ser | Pro | Arg | Val | Ala | Lys | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Gln | Ser | Val | Trp | Met | Glu | Glu | Gly | Ser | Pro | Leu | Met | Val | Tyr | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Arg | Arg | Gln | Glu | Lys | Ala | Leu | Ala | Ala | Arg | Leu | Pro | Asp | Met | Pro | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Leu | Gly | Met | Ser | Tyr | Gly | Lys | Pro | Ser | Leu | Glu | Ser | Ala | Val | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Leu | Leu | Ala | Gln | Gly | Val | Glu | His | Ile | Val | Val | Leu | Ala | Leu | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Gln | Tyr | Ser | Cys | Ser | Thr | Val | Ala | Ala | Val | Trp | Asp | Glu | Leu | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Ile | Leu | Ala | Thr | Arg | Arg | Arg | Ile | Pro | Gly | Ile | Thr | Phe | Ile | Arg |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Asp | Tyr | Ala | Asp | Asn | Glu | Leu | Tyr | Ile | Gln | Ala | Leu | Ala | Ser | Ser Val |
| | | | | 165 | | | | | 170 | | | | | 175 |
| Arg | Ala | Ser | Phe | Glu | Lys | His | Gly | Glu | Pro | Asp | Leu | Leu | Leu | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | |
| Tyr | His | Gly | Ile | Pro | Gln | Arg | Phe | Ala | Asn | Glu | Gly | Asp | Asp | Tyr Pro |
| | | 195 | | | | | 200 | | | | | 205 | | |
| Gln | Arg | Cys | Arg | Asp | Thr | Thr | Arg | Glu | Leu | Val | Ser | Ala | Leu | Gly Leu |
| | 210 | | | | | 215 | | | | | 220 | | | |
| Pro | Pro | Glu | Lys | Val | Met | Met | Thr | Phe | Gln | Ser | Arg | Phe | Gly | Arg Glu |
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Pro | Trp | Leu | Thr | Pro | Tyr | Thr | Asp | Glu | Thr | Leu | Lys | Met | Leu | Gly Glu |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Lys | Gly | Val | Lys | His | Ile | Gln | Val | Met | Ser | Pro | Gly | Phe | Ser | Ala Asp |
| | | | 260 | | | | | 265 | | | | | 270 | |
| Cys | Leu | Glu | Thr | Leu | Glu | Glu | Ile | Ala | Val | Gln | Asn | Lys | Glu | Phe Phe |
| | | 275 | | | | | 280 | | | | | 285 | | |
| Met | Glu | Ala | Gly | Gly | Thr | Lys | Tyr | Glu | Tyr | Ile | Pro | Ala | Leu | Asn Asp |
| | 290 | | | | | 295 | | | | | 300 | | | |
| Ser | Pro | Glu | His | Ile | Asp | Met | Met | Val | Ser | Leu | Val | Thr | Thr | Arg Arg |
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<212> PRT

<213> Enterobacter cloacae

<400> 7723

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| Pro | Ala | Lys | Ala | Ile | Arg | Cys | Trp | Arg | Leu | Ile | Arg | Arg | Trp | Thr | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Thr | Trp | Cys | Ser | Ala | Pro | Pro | Gly | Arg | Ser | Gly | Cys | Thr | Trp | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ser | Arg | Lys | Lys | Arg | Ala | Ser | Val | Lys | Pro | Ser | Thr | Arg | Cys | Cys |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Arg | Ala | Gln | Ser | Pro | Asn | Leu | Thr | Ser | Met | Ser | Ser | Ala | Ala | Leu | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ile | Lys | Thr | Ala | Ser | Thr | Arg | Cys | Val | Ser | Ser | Leu | Thr | Ser | His |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Ile | Trp | Val | Ala | Leu | Arg | Arg | Ser | | | | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 7724

<211> 264

<212> PRT

<213> Enterobacter cloacae

<400> 7724

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| Met | Arg | Ile | Ser | Gly | Ser | Asn | Ser | Ile | Pro | Thr | Glu | Thr | Lys | Asn | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ala | Asn | Ala | Ser | Arg | Ser | Gly | Arg | Val | Ser | Cys | Ala | Ala | Arg | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ser | Ser | Asp | Ser | Phe | Ser | Thr | Ile | Pro | Ala | Lys | Asn | Ala | Pro | Ser |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ala | Lys | Glu | Thr | Ser | Asn | Ser | Ser | Thr | Ala | Pro | Lys | Ala | Met | Pro | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ser | Ala | Arg | Thr | Glu | Ser | Val | Asn | Ser | Ser | Arg | Glu | Pro | Val | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Leu | Arg | Asp | Met | Ile | His | Gly | Thr | Arg | Arg | Arg | Pro | Thr | Ser | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |

Met Met Ala Ile Asn Ala Thr Thr Leu Pro Met Val Met Leu Ile Ser
 100 105 110
 Ser Ala Ser Glu Ala Lys Pro Ile Phe Ser Phe Ser Ile Ile Pro Ala
 115 120 125
 Thr Ala Gly Ser Arg Thr Ser Val Asn Thr Ile Thr Arg Ser Ser Thr
 130 135 140
 Ile Ser Gln Pro Ile Ala Ile Cys Pro Arg Trp Leu Ser Ile Ser Cys
 145 150 155 160
 Leu Ser Ser Ser Ala Arg Ser Ser Thr Thr Val Leu Ala Val Glu Arg
 165 170 175
 His Ser Pro Asn Thr Ile Pro Val Met Ile Asp Gln Pro Ser Thr Ala
 180 185 190
 Glu Ser Ala Met Pro Ser Ser Val Ala Thr Pro Ile Trp Ala Ile Ala
 195 200 205
 Pro Gly Met Ala Ile Asp Phe Thr Ala Ile Arg Ser Phe Arg Glu Lys
 210 215 220
 Cys Ser Pro Thr Pro Asn Ile Ser Arg Ile Thr Pro Asn Ser Ala Ser
 225 230 235 240
 Ser Gly Ala Ser Leu Val Ser Ala Thr Lys Pro Gly Val Lys Gly Pro
 245 250 255
 Ala Ser Thr Pro Ala Ser Lys
 260

<210> 7725

<211> 104

<212> PRT

<213> Enterobacter cloacae

<400> 7725

Tyr Pro Val Tyr Gly Gly Ser Pro Glu Cys Ala Pro Val Arg Pro
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 Arg Arg Gln Leu Pro Trp Ser Thr Asn Thr Ala Asp Ile Glu Pro Ala
 20 25 30
 Pro Gln Cys Val Gln Arg Pro Ala Pro Ala Glu Ser Gln Arg Arg Phe
 35 40 45
 Pro Gly Thr Ala Tyr Arg Ser Ser Cys Arg Ala Gln Arg Ala Cys Pro
 50 55 60
 Ala Gly Gly Arg Pro Ala Pro Ser Pro Asp Asp Gly Cys Thr Pro Ser
 65 70 75 80
 Ala Ala Ser Pro Leu Pro Ser Thr Arg Thr Asp Arg Ala Leu Pro His
 85 90 95
 Ala Gly Asn Glu Ser Ala Glu
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<210> 7726

<211> 173

<212> PRT

<213> Enterobacter cloacae

<400> 7726

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 Leu His Thr Ala Gly Asn Arg Gly His Phe Leu Phe Leu Gly Phe Val
 20 25 30
 Asp Thr Ala Ser Gly Ile Val Lys Arg Gly Cys Asn Gln Ile Phe Gln
 35 40 45
 His Leu Phe Val Val Phe Glu Ala Arg Val Asp Phe His Ala Thr
 50 55 60
 Ala Val Met Arg Thr Val Asp Gly His Leu Asp Gln Thr Gly Thr Gly
 65 70 75 80
 Phe Thr Arg Asp Phe Gln Leu Ser Asp Leu Phe Leu His Leu Leu His


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<213> Enterobacter cloacae
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<212> PRT.
<213> Enterobacter cloacae
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<211> 422
<212> PRT
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<213> Enterobacter cloacae

<400> 7729

Tyr Lys Arg Ser Asn Gly Phe Leu Asp Ser Gly Pro Leu Ile Asn Leu
 1 5 10 15
 Lys Ser Asp Thr Arg Gly Leu His Met Asn Lys Asn Arg Gly Leu Thr
 20 25 30
 Pro Leu Ala Val Val Leu Met Leu Ser Gly Ser Leu Ala Leu Thr Gly
 35 40 45
 Cys Asp Asp Lys Glu Ala Gln Gln Gly Ala Gln Gln Val Pro Glu Val
 50 55 60
 Gly Val Val Thr Leu Lys Ser Glu Pro Leu Gln Met Thr Thr Glu Leu
 65 70 75 80
 Pro Gly Arg Thr Ser Ala Tyr Arg Ile Ala Glu Val Arg Pro Gln Val
 85 90 95
 Ser Gly Ile Ile Leu Lys Arg Asn Phe Thr Glu Gly Gly Asp Val Lys
 100 105 110
 Ala Gly Glu Ser Leu Tyr Gln Ile Asp Pro Ala Thr Tyr Gln Ala Ser
 115 120 125
 Tyr Glu Ser Ala Lys Gly Asp Leu Ala Lys Ala Glu Ala Ala Lys
 130 135 140
 Ile Ser Gln Leu Thr Leu Asn Arg Tyr Lys Lys Leu Leu Gly Thr Gln
 145 150 155 160
 Tyr Ile Ser Gln Gln Asp Tyr Asp Ser Ala Leu Ala Asp Ala Gln Gln
 165 170 175
 Ala Asn Ala Ala Val Val Ala Ala Lys Ala Ala Val Glu Thr Ala Arg
 180 185 190
 Ile Asn Leu Ala Tyr Thr Lys Val Thr Ser Pro Ile Ser Gly Arg Ile
 195 200 205
 Gly Lys Ser Ala Val Thr Glu Gly Ala Leu Val Gln Asn Gly Gln Thr
 210 215 220
 Asn Ala Leu Ala Thr Val Gln Gln Leu Asp Pro Ile Tyr Val Asp Val
 225 230 235 240
 Thr Gln Ser Ser Asn Asp Phe Leu Arg Leu Lys Gln Glu Leu Ala Ser
 245 250 255
 Gly Gln Leu Lys Gln Glu Asn Gly Lys Ala Lys Val Glu Leu Val Thr
 260 265 270
 Asn Asp Gly Ile Glu Phe Ser Gln Thr Gly Thr Leu Glu Phe Ser Asp
 275 280 285
 Val Thr Val Asp Gln Thr Thr Gly Ser Ile Thr Ile Arg Ala Ile Phe
 290 295 300
 Pro Asn Pro Asp Lys Thr Leu Leu Pro Gly Met Phe Val Arg Ala Arg
 305 310 315 320
 Leu Glu Glu Gly Thr Asn Pro Ser Ala Ile Leu Val Pro Gln Gln Gly
 325 330 335
 Val Thr Arg Thr Pro Arg Gly Asp Ala Ser Ala Leu Val Val Gly Ala
 340 345 350
 Asp Asn Lys Lys Val Glu Met Arg Asn Ile Thr Ala Thr Gln Ala Ile Gly
 355 360 365
 Asp Lys Trp Leu Val Thr Glu Gly Leu Lys Asp Gly Asp Arg Val Ile
 370 375 380
 Ile Thr Gly Leu Gln Lys Val Arg Pro Gly Ala Gln Val Lys Ala Gln
 385 390 395 400
 Glu Val Lys Ser Asp Asp Lys Gln Gln Ala Ser Ala Ala Gly Gln Ser
 405 410 415
 Glu Gln Thr Lys Ser
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<210> 7730

<211> 67

<212> PRT

<213> Enterobacter cloacae

<400> 7730

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Ser Lys Leu Met Asn Thr Trp Thr Thr Pro Leu Cys Cys Ser Ala Ala
1      5      10      15
Thr Ala Leu Thr His Arg Ile Cys Arg Asn Gly Val Asn Gln Glu Thr
20      25      30
Ala Tyr Phe Ala Ala Ser Leu Met Ser Ala Glu Leu Ile Arg Leu Val
35      40      45
Phe Pro Val Lys Ile Ile Thr Ile Thr Lys Val Asn Leu Cys Leu Ile
50      55      60
Asn His
65

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<210> 7731

<211> 191

<212> PRT

<213> Enterobacter cloacae

<400> 7731

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Asn Asp Ser Arg Glu Val Pro Met Ser Glu Glu Lys Gln Lys Met Ile
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Ala Gly Glu Tyr Tyr Arg Pro Gly Asp Thr Leu Arg Ala Asn Arg
20      25      30
Leu Arg Ala Arg His Leu Val His Arg Tyr Asn His Thr Ala Pro Asp
35      40      45
Glu Lys Ala Glu Arg Arg Ala Leu Leu Ala Asp Leu Leu Gly Gln Ser
50      55      60
Glu Gly Ala Tyr Ile Glu Pro Ser Phe Arg Cys Asp Tyr Gly Tyr Asn
65      70      75      80
Ile Tyr Leu Gly Lys Asn Phe Tyr Ala Asn Phe Asp Cys Val Met Leu
85      90      95
Asp Val Cys Pro Val Arg Ile Gly Asp Asn Cys Met Leu Ala Pro Gly
100     105     110
Val His Ile Tyr Thr Ala Thr His Pro Leu Asp Ala Thr Glu Arg Asn
115     120     125
Ser Gly Leu Glu Tyr Gly Lys Pro Val Thr Ile Gly Asp Asn Val Trp
130     135     140
Ile Gly Gly Arg Ala Ile Ile Asn Pro Gly Val Thr Ile Gly Asp Asn
145     150     155     160
Ala Val Ile Ala Ser Gly Ala Val Val Thr Lys Asp Val Pro Ala Asn
165     170     175
Ala Val Val Gly Gly Asn Pro Ala Lys Ile Ile Lys Met Leu
180     185     190

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<210> 7732

<211> 92

<212> PRT

<213> Enterobacter cloacae

<400> 7732

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Ser Leu His Tyr Phe Thr Leu Leu Ala Ile Ile Gly Phe Val Leu Ala
1      5      10      15
Ser Ala Phe Ser Val Ile Leu Val Tyr Ala Gln Glu Leu Leu Pro Gly
20      25      30
Arg Ile Gly Met Val Ser Gly Leu Phe Phe Gly Phe Ala Phe Gly Met
35      40      45
Gly Gly Leu Gly Ala Ala Val Leu Gly Met Val Ala Asp His Thr Ser
50      55      60
Ile Phe Leu Val Tyr Lys Ile Cys Ala Phe Leu Pro Leu Leu Gly Met
65      70      75      80

```


Leu Thr Ile Phe Leu Pro Asp Asn Arg His Lys Ala
85 90

<210> 7733

<211> 1038

<212> PRT

<213> Enterobacter cloacae

<400> 7733

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Met | Pro | Asn | Phe | Phe | Ile | Asp | Arg | Pro | Ile | Phe | Ala | Trp | Val | Ile |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Ala | Ile | Ile | Ile | Met | Leu | Ala | Gly | Gly | Leu | Ala | Ile | Leu | Lys | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ala | Gln | Tyr | Pro | Thr | Ile | Ala | Pro | Pro | Ala | Val | Thr | Ile | Ser | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Tyr | Pro | Gly | Ala | Asp | Ala | Lys | Thr | Val | Gln | Asp | Thr | Val | Thr | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ile | Glu | Gln | Asn | Met | Asn | Gly | Ile | Asp | Asn | Leu | Met | Tyr | Met | Ser |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Ser | Asn | Ser | Asp | Ser | Thr | Gly | Thr | Val | Gln | Ile | Thr | Leu | Thr | Phe | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Gly | Thr | Asp | Ala | Asp | Ile | Ala | Gln | Val | Gln | Val | Gln | Asn | Lys | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Leu | Ala | Met | Pro | Leu | Leu | Pro | Gln | Glu | Val | Gln | Gln | Gln | Gly | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Val | Glu | Lys | Ser | Ser | Ser | Ser | Phe | Leu | Met | Val | Val | Gly | Val | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Thr | Asn | Gly | Thr | Met | Thr | Gln | Glu | Asp | Ile | Ser | Asp | Tyr | Val | Gly |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Ala | Asn | Met | Lys | Asp | Ala | Ile | Ser | Arg | Thr | Ser | Gly | Val | Gly | Asp | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gln | Leu | Phe | Gly | Ser | Gln | Tyr | Ala | Met | Arg | Ile | Trp | Met | Asp | Pro | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Lys | Leu | Asn | Asn | Phe | Gln | Leu | Thr | Pro | Val | Asp | Val | Ile | Asn | Ala | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Ala | Gln | Asn | Ala | Gln | Val | Ala | Ala | Gly | Gln | Leu | Gly | Gly | Thr | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Val | Lys | Gly | Gln | Gln | Leu | Asn | Ala | Ser | Ile | Ile | Ala | Gln | Thr | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Thr | Ser | Ala | Asp | Glu | Phe | Ser | Lys | Ile | Leu | Leu | Lys | Val | Asn | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Gly | Ser | Gln | Val | Arg | Leu | Arg | Asp | Val | Ala | Lys | Val | Glu | Leu | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Glu | Asn | Tyr | Asp | Val | Ile | Ala | Lys | Phe | Asn | Gly | Lys | Pro | Ala | Ser |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Leu | Gly | Ile | Lys | Leu | Ala | Thr | Gly | Ala | Asn | Ala | Leu | Asp | Thr | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Ala | Ile | Arg | Ala | Glu | Leu | Lys | Lys | Met | Glu | Pro | Phe | Phe | Pro | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Leu | Lys | Ile | Val | Tyr | Pro | Tyr | Asp | Thr | Thr | Pro | Phe | Val | Lys | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ser | Ile | His | Glu | Val | Val | Lys | Thr | Leu | Val | Glu | Ala | Ile | Ile | Leu | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Phe | Leu | Val | Met | Tyr | Leu | Phe | Leu | Gln | Asn | Phe | Arg | Ala | Thr | Leu | Ile |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Pro | Thr | Ile | Ala | Val | Pro | Val | Val | Leu | Leu | Gly | Thr | Phe | Ala | Val | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Ile | Phe | Gly | Tyr | Ser | Ile | Asn | Thr | Leu | Thr | Met | Phe | Gly | Met | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Ala | Ile | Gly | Leu | Leu | Val | Asp | Asp | Ala | Ile | Val | Val | Val | Glu | Asn |
| | | | | 405 | | | | | 410 | | | | | 415 | |

3646 7733 1038 PRT Enterobacter cloacae

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Glu | Arg | Val | Met | Ala | Glu | Glu | Gly | Leu | Pro | Pro | Lys | Glu | Ala | Thr |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Arg | Lys | Ser | Met | Gly | Gln | Ile | Gln | Gly | Ala | Leu | Val | Gly | Ile | Ala | Met |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Val | Leu | Ser | Ala | Val | Phe | Ile | Pro | Met | Ala | Phe | Phe | Gly | Gly | Ser | Thr |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Gly | Ala | Ile | Tyr | Arg | Gln | Phe | Ser | Ile | Thr | Ile | Val | Ser | Ala | Met | Ala |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Leu | Ser | Val | Leu | Val | Ala | Leu | Ile | Leu | Thr | Pro | Ala | Leu | Cys | Ala | Thr |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Met | Leu | Lys | Pro | Ile | Gln | Lys | Gly | Gly | His | Gly | Glu | His | Lys | Gly | Phe |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Phe | Gly | Trp | Phe | Asn | Arg | Met | Phe | Asp | Lys | Ser | Thr | His | His | Tyr | Thr |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Asp | Ser | Val | Gly | Asn | Ile | Leu | Arg | Ser | Thr | Gly | Arg | Tyr | Leu | Leu | Leu |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Tyr | Ile | Ile | Ile | Val | Val | Gly | Met | Ala | Phe | Leu | Phe | Val | Arg | Leu | Pro |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ser | Ser | Phe | Leu | Pro | Asp | Glu | Asp | Gln | Gly | Val | Phe | Leu | Ser | Met | Ala |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Gln | Leu | Pro | Ala | Gly | Ala | Thr | Gln | Glu | Arg | Thr | Gln | Lys | Val | Leu | Asp |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Glu | Met | Thr | Asp | Tyr | Phe | Leu | Thr | Lys | Glu | Lys | Asp | Asn | Val | Glu | Ser |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Val | Phe | Ala | Val | Asn | Gly | Phe | Gly | Phe | Ala | Gly | Arg | Gly | Gln | Asn | Thr |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Gly | Ile | Ala | Phe | Val | Ser | Leu | Lys | Asp | Trp | Ser | Glu | Arg | Pro | Gly | Ala |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Glu | Asn | Lys | Val | Glu | Ala | Ile | Thr | Gly | Arg | Ala | Met | Gly | Thr | Phe | Ser |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Gln | Ile | Lys | Asp | Ala | Met | Val | Phe | Ala | Phe | Asn | Leu | Pro | Ala | Ile | Val |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Glu | Leu | Gly | Thr | Ala | Thr | Gly | Phe | Asp | Phe | Gln | Leu | Ile | Asp | Gln | Gly |
| | | 675 | | | | 680 | | | | | | 685 | | | |
| Gly | Leu | Gly | His | Glu | Lys | Leu | Thr | Gln | Ala | Arg | Asn | Gln | Leu | Phe | Gly |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Glu | Val | Ala | Lys | His | Pro | Asp | Leu | Leu | Val | Gly | Val | Arg | Pro | Asn | Gly |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Leu | Glu | Asp | Thr | Pro | Gln | Tyr | Lys | Ile | Asp | Ile | Asp | Gln | Glu | Lys | Ala |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Gln | Ala | Leu | Gly | Val | Ser | Ile | Ser | Asp | Ile | Asn | Thr | Thr | Leu | Gly | Ala |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Ala | Trp | Gly | Gly | Ser | Tyr | Val | Asn | Asp | Phe | Ile | Asp | Arg | Gly | Arg | Val |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Lys | Lys | Val | Tyr | Val | Met | Ser | Glu | Ala | Gln | Tyr | Arg | Met | Leu | Pro | Asn |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Asp | Ile | Asn | Asn | Trp | Tyr | Val | Arg | Gly | Ser | Asp | Gly | Gln | Met | Val | Pro |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Phe | Ser | Ala | Phe | Ser | Thr | Ser | Arg | Trp | Glu | Tyr | Gly | Ser | Pro | Arg | Leu |
| | | | 805 | | | | | | 810 | | | | | 815 | |
| Glu | Arg | Tyr | Asn | Gly | Leu | Pro | Ser | Met | Glu | Ile | Leu | Gly | Gln | Ala | Ala |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Pro | Gly | Arg | Ser | Thr | Gly | Glu | Ala | Met | Asn | Leu | Met | Glu | Glu | Leu | Ala |
| | | | 835 | | | | 840 | | | | | 845 | | | |
| Ser | Lys | Leu | Pro | Ala | Gly | Ile | Gly | Tyr | Asp | Trp | Thr | Gly | Met | Ser | Tyr |
| | 850 | | | | | 855 | | | | | 860 | | | | |
| Gln | Glu | Arg | Leu | Ser | Gly | Asn | Gln | Ala | Pro | Ala | Leu | Tyr | Ala | Ile | Ser |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 |
| Leu | Ile | Val | Val | Phe | Leu | Cys | Leu | Ala | Ala | Leu | Tyr | Glu | Ser | Trp | Ser |
| | | | | 885 | | | | | 890 | | | | | 895 | |
| Ile | Pro | Phe | Ser | Val | Met | Leu | Val | Val | Pro | Leu | Gly | Val | Ile | Gly | Ala |


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<210> 7734
<211> 580
<212> PRT
<213> Enterobacter cloacae
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|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <400> 7734 | | | | | | | | | | | | | | | |
| Thr 1 | Ile | Asn | Arg | Leu 5 | Phe | Gly | Ile | Cys | Thr 10 | Lys | Asn | Gly | Ser | Pro 15 | Ile |
| Ala | Lys | Gly | Asp 20 | Gly | Met | His | His | Ala 25 | Thr | Pro | Leu | Ile | Thr 30 | Thr | Ile |
| Val | Gly | Gly 35 | Leu | Val | Leu | Ala | Phe 40 | Ile | Leu | Gly | Met | Ile 45 | Ala | Asn | Lys |
| Leu | Arg 50 | Ile | Ser | Pro | Leu | Val 55 | Gly | Tyr | Leu | Leu | Ala 60 | Gly | Val | Leu | Ala |
| Gly 65 | Pro | Phe | Thr | Pro | Gly 70 | Phe | Val | Ala | Asp 75 | Thr | Lys | Leu | Ala | Pro 80 | Glu |
| Leu | Ala | Glu | Leu | Gly 85 | Val | Ile | Leu | Leu | Met 90 | Phe | Gly | Val | Gly | Leu 95 | His |
| Phe | Ser | Leu | Lys 100 | Asp | Leu | Met | Ala | Val 105 | Lys | Ser | Ile | Ala | Ile | Pro 110 | Gly |
| Ala | Ile | Ala 115 | Gln | Ile | Gly | Val | Ala 120 | Thr | Leu | Leu | Gly | Met 125 | Ala | Leu | Ser |
| Ala | Val 130 | Leu | Gly | Trp | Ser | Ile 135 | Met | Thr | Gly | Ile | Val 140 | Phe | Gly | Leu | Cys |
| Leu 145 | Ser | Thr | Ala | Ser | Thr 150 | Val | Val | Leu | Leu | Arg 155 | Ala | Leu | Glu | Glu | Arg 160 |
| Gln | Leu | Ile | Asp | Ser 165 | Gln | Arg | Gly | Gln | Ile 170 | Ala | Ile | Gly | Trp | Leu 175 | Ile |
| Val | Glu | Asp | Leu 180 | Val | Met | Val | Leu | Thr 185 | Leu | Val | Leu | Leu | Pro 190 | Ala | Val |
| Ala | Gly | Met 195 | Met | Glu | Lys | Glu | Asn 200 | Ile | Gly | Phe | Ala | Ser 205 | Leu | Ala | Leu |
| Asp | Met 210 | Ser | Ile | Thr | Ile | Gly 215 | Lys | Val | Val | Ala | Phe 220 | Ile | Ala | Ile | Met |
| Met 225 | Leu | Val | Gly | Arg | Arg 230 | Leu | Val | Pro | Trp | Ile 235 | Met | Ser | Arg | Ser | Ala 240 |
| Ala | Thr | Gly | Ser | Arg 245 | Glu | Leu | Phe | Thr | Leu | Ser | Val | Leu | Ala | Leu 255 | Ala |
| Leu | Gly | Ile | Ala 260 | Phe | Gly | Ala | Val | Glu 265 | Leu | Phe | Asp | Val | Ser | Phe | Ala |
| Leu | Gly | Ala 275 | Phe | Phe | Ala | Gly | Met 280 | Val | Leu | Asn | Glu | Ser | Glu | Leu | Ser |
| His | Arg | Ala | Ala | His | Asp | Thr | Leu | Pro | Leu | Arg | Asp | Ala | Phe | Ala | Val |

| | | | | |
|---|-----|-----|-----|-----|
| 290 | | 295 | | 300 |
| Leu Phe Phe Val Ser Val Gly Met Leu Phe Asp Pro Leu Ile Leu Ile | | | | |
| 305 | | 310 | | 315 |
| Gln Gln Pro Leu Ala Val Leu Gly Thr Leu Ala Ile Ile Ile Phe Gly | | | | |
| | 325 | | 330 | |
| Lys Ser Val Ala Ala Phe Phe Leu Val Arg Met Phe Gly His Ser Pro | | | | |
| | 340 | | 345 | |
| Arg Thr Ala Leu Thr Ile Ala Ala Ser Leu Ala Gln Ile Gly Glu Phe | | | | |
| | 355 | | 360 | |
| Ala Phe Ile Leu Ala Gly Leu Gly Met Ala Leu Asn Leu Leu Pro Gln | | | | |
| | 370 | | 375 | |
| Ala Gly Gln Asn Leu Val Leu Ala Gly Ala Ile Leu Ser Ile Met Leu | | | | |
| 385 | | 390 | | 395 |
| Asn Pro Val Leu Phe Ala Leu Leu Glu Lys Tyr Leu Glu Lys Thr Glu | | | | |
| | 405 | | 410 | |
| Thr Leu Glu Glu Leu Thr Leu Glu Glu Ala Thr Glu Glu Glu Lys Gln | | | | |
| | 420 | | 425 | |
| Ile Pro Val Asp Ile Cys Asn His Ala Leu Leu Val Gly Phe Gly Arg | | | | |
| | 435 | | 440 | |
| Val Gly Ser Leu Leu Gly Glu Lys Leu Met Ala Gln Gly Ile Pro Leu | | | | |
| | 450 | | 455 | |
| Val Val Ile Glu Thr Ser Arg Thr Arg Val Asp Glu Leu Arg Glu Arg | | | | |
| 465 | | 470 | | 475 |
| Gly Ile Arg Ala Val Leu Gly Asn Ala Ala Asn Glu Glu Ile Met Asn | | | | |
| | 485 | | 490 | |
| Leu Ala His Leu Asp Cys Ala Arg Trp Leu Leu Leu Thr Ile Pro Asn | | | | |
| | 500 | | 505 | |
| Gly Tyr Glu Ala Gly Glu Ile Val Ala Thr Ala Arg Glu Lys Cys Pro | | | | |
| | 515 | | 520 | |
| His Ile Glu Ile Ile Ala Arg Ala His Tyr Asp Asp Glu Val Glu Tyr | | | | |
| | 530 | | 535 | |
| Ile Thr Glu Arg Gly Ala Asn Gln Val Val Met Gly Glu Arg Glu Ile | | | | |
| 545 | | 550 | | 555 |
| Ala Asn Thr Met Leu Thr Met Leu Thr Lys Pro Pro Val Glu Glu Ala | | | | |
| | 565 | | 570 | |
| Val Thr Gly | | | | 575 |
| | 580 | | | |

<210> 7735

<211> 138

<212> PRT

<213> Enterobacter cloacae

<400> 7735

| | |
|---|-----|
| Cys Ser Val Ser Lys Lys Ser Leu Arg Arg Gly Cys Ala Met Asp Glu | |
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| Tyr Ser Pro Lys Arg His Asp Ile Ala Gln Leu Lys Phe Leu Cys Glu | |
| | 20 |
| Ser Leu Tyr His Asp Cys Leu Ala Asn Leu Glu Glu Ser Asn His Gly | |
| | 35 |
| Trp Val Asn Asp Pro Thr Ser Ala Ile Asn Leu Gln Leu Asn Glu Leu | |
| | 50 |
| Ile Glu His Ile Ala Thr Phe Ala Leu Asn Tyr Lys Ile Lys Tyr Asn | |
| 65 | 70 |
| Glu Asp Asn Lys Leu Ile Glu Gln Ile Asp Glu Tyr Leu Asp Asp Thr | |
| | 85 |
| Phe Met Leu Phe Ser Ser Tyr Gly Ile Asn Ala Gln Asp Leu Gln Lys | |
| | 100 |
| Trp Arg Lys Ser Gly Asn Arg Leu Phe Arg Cys Phe Thr Asn Val Ser | |
| | 115 |
| Arg Ala Asn Pro Val Ser Leu Ser Cys | 125 |

130

135

<210> 7736

<211> 76

<212> PRT

<213> Enterobacter cloacae

<400> 7736

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Phe | Met | Ser | Asp | Lys | Pro | Leu | Thr | Lys | Val | Asp | Tyr | Leu | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Arg | Arg | Cys | Gln | Ser | Ile | Asp | Thr | Leu | Glu | Arg | Val | Ile | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Asn | Lys | Tyr | Glu | Leu | Ser | Asp | Asn | Glu | Leu | Ala | Val | Phe | Tyr | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ala | Asp | His | Arg | Leu | Ala | Glu | Leu | Thr | Met | Asn | Lys | Leu | Tyr | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Ile | Pro | Ser | Ser | Val | Trp | Lys | Phe | Val | Arg | | | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | |

<210> 7737

<211> 159

<212> PRT

<213> Enterobacter cloacae

<400> 7737

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gln | Lys | Met | Thr | Glu | Ile | Gln | Arg | Leu | Leu | Thr | Ala | Thr | Ile | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Leu | Asn | Thr | Arg | Glu | Lys | Arg | Asp | Asn | Arg | Pro | Arg | Phe | Ser | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Phe | Ile | Arg | Lys | His | Pro | Gly | Leu | Phe | Val | Ala | Met | Tyr | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Leu | Ala | Thr | Leu | Ile | Val | Met | Leu | Lys | Ser | Glu | Thr | Leu | Val | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Val | Trp | Leu | Leu | Val | Val | Leu | Phe | Val | Val | Phe | Asn | Ala | Phe | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Phe | Phe | Asp | Val | Asn | Pro | Arg | Tyr | Arg | Tyr | Glu | Asp | Ile | Asp | Val | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Phe | Arg | Val | Cys | Tyr | Asn | Gly | Glu | Trp | Tyr | Asn | Thr | Arg | Tyr | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Lys | Glu | Leu | Ile | Asp | Ser | Ile | Leu | His | Ser | Pro | Ala | Val | Glu | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Gln | Lys | Glu | Lys | Leu | Gln | Lys | Met | Val | Thr | Thr | Lys | Gly | Gln | Leu |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Ser | Phe | Tyr | Asp | Val | Phe | Thr | Leu | Ser | Arg | Pro | Thr | Ala | Ala | | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 7738

<211> 248

<212> PRT

<213> Enterobacter cloacae

<400> 7738

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Gly | Asp | Leu | Leu | Asn | Ile | Met | Glu | Ile | Lys | Met | Asn | Thr | Phe | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Phe | Gly | Gln | Pro | Val | Gly | Glu | Ser | Leu | Ile | Asp | Trp | Gln | Pro | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | His | Pro | Ser | Arg | Val | Val | Leu | Gln | Gly | Arg | Tyr | Cys | Arg | Leu | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Leu | Arg | Met | Glu | His | Ala | His | Ala | Leu | Phe | Ser | Ala | Tyr | Ser | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Gly | Asp | Thr | Arg | Ser | Trp | Thr | Trp | Leu | Leu | Arg | Glu | Pro | Asp | Ala |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Thr | Ala | Glu | Glu | Phe | Ala | Glu | Trp | Val | Ala | Ser | Val | Ser | Glu | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 |
| Asp | Pro | Ile | His | Phe | Thr | Val | Ile | Asp | Asn | Gln | Thr | Gln | Ser | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | Val |
| Gly | Thr | Leu | Ser | Leu | Met | Arg | Ile | Asp | Pro | Lys | Asn | Gly | Val | Val |
| | | 115 | | | | | 120 | | | | | 125 | | Glu |
| Val | Gly | His | Val | His | Phe | Ser | Ser | Leu | Leu | Ser | Arg | Thr | Pro | Met |
| | 130 | | | | | 135 | | | | | 140 | | | Ser |
| Thr | Glu | Ala | Gln | Tyr | Leu | Leu | Met | Arg | Tyr | Val | Phe | Asp | Thr | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | Gly |
| Tyr | Arg | Arg | Tyr | Glu | Trp | Lys | Cys | Asn | Ser | Leu | Asn | Glu | Pro | Ser |
| | | | | 165 | | | | | 170 | | | | | Arg |
| Lys | Ala | Ala | Leu | Arg | Leu | Gly | Phe | Gln | Phe | Glu | Gly | Arg | Phe | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | Gln |
| Ala | Leu | Val | Ile | Lys | Gly | Arg | Asn | Arg | Asp | Thr | Asp | Trp | Phe | Ser |
| | | 195 | | | | | 200 | | | | 205 | | | Ile |
| Leu | Asp | Lys | Glu | Trp | Pro | Ala | Leu | Ala | Ser | Ala | Phe | Glu | Ser | Trp |
| | 210 | | | | | 215 | | | | | 220 | | | Leu |
| Ala | Thr | Asp | Asn | Phe | Thr | Ala | Asp | Gly | Lys | Gln | Lys | Arg | Ser | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | Glu |
| Ser | Trp | Arg | Glu | Thr | Arg | Val | | | | | | | | |
| | | | | 245 | | | | | | | | | | |

<210> 7739

<211> 266

<212> PRT

<213> Enterobacter cloacae

<400> 7739

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Tyr | Ala | Gln | Glu | Leu | Gln | Met | Ala | Arg | Ser | Trp | Val | Arg | Leu | Phe |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ala | Gly | Ala | Thr | Leu | Thr | Leu | Ser | Leu | Thr | Gly | His | Ala | Leu | Ala | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Gly | Lys | Ile | Thr | Val | Phe | Ala | Ala | Ala | Ser | Leu | Thr | Asn | Ala | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Asp | Ile | Ala | Ala | Val | Tyr | Lys | Lys | Glu | Lys | Asn | Val | Glu | Val | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Phe | Ala | Ser | Ser | Ser | Thr | Leu | Ala | Arg | Gln | Ile | Glu | Ala | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Pro | Ala | Asp | Leu | Phe | Ile | Ser | Ala | Asp | Gln | Lys | Trp | Met | Asp | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Val | Glu | Lys | Lys | Ser | Val | Asp | Thr | Ala | Thr | Arg | Glu | Thr | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Asn | Ser | Leu | Val | Val | Val | Ala | Pro | Ala | Asn | Ser | Lys | Gln | Gly | Asp |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ile | Ala | Ile | Asn | Lys | Gln | Thr | Asp | Trp | Thr | Arg | Leu | Leu | Asn | Gly | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Leu | Ala | Val | Gly | Asp | Pro | Glu | His | Val | Pro | Ala | Gly | Ile | Tyr | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Glu | Ala | Leu | Gln | Lys | Leu | Gly | Ala | Trp | Glu | Thr | Leu | Ser | Pro | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ala | Pro | Ala | Glu | Asp | Val | Arg | Gly | Ala | Leu | Ala | Leu | Val | Glu | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Glu | Val | Pro | Leu | Gly | Ile | Val | Tyr | Gly | Ser | Asp | Ala | Val | Ala | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Gly | Val | Lys | Val | Val | Gly | Thr | Phe | Pro | Glu | Asp | Ser | His | Lys | Lys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Glu | Tyr | Pro | Val | Ala | Ile | Val | Asp | Gly | His | Lys | Asn | Ala | Ser | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Ala | Phe | Val | Asp | Tyr | Leu | Lys | Gly | Pro | Glu | Ala | Ser | Ala | Ile | Phe |

Lys Arg Tyr Gly Phe Thr Thr His Glu
 245 250 255
 260 265

<210> 7740
 <211> 336
 <212> PRT
 <213> Enterobacter cloacae

<400> 7740
 Ser Gly Val Phe Met Lys Gln Thr Val Tyr Thr Ala Ser Pro Glu Ser
 1 5 10 15
 Gln Gln Ile His Val Trp Arg Leu Asn Thr Glu Gly Ser Leu Thr Leu
 20 25 30
 Val Gln Val Val Asp Val Pro Gly Gln Val Gln Pro Met Val Val Ser
 35 40 45
 Pro Asp Lys Arg Phe Leu Tyr Val Gly Val Arg Pro Glu Phe Arg Val
 50 55 60
 Leu Ala Tyr Arg Ile Ser Pro Asp Asp Gly Ala Leu Thr Tyr Thr Ala
 65 70 75 80
 Glu Ala Pro Leu Pro Gly Ser Pro Thr His Ile Ser Thr Asp His Lys
 85 90 95
 Gly Asn Phe Ile Phe Ser Gly Ser Tyr Asn Ala Gly Ser Val Ser Val
 100 105 110
 Thr Arg Leu Glu Asp Gly Ile Pro Val Glu Thr Val Asp Val Val Glu
 115 120 125
 Gly Leu Glu Gly Cys His Ser Ala Asn Ile Ser Pro Asp Asn Arg Thr
 130 135 140
 Leu Trp Val Pro Ala Leu Lys Gln Asp Arg Ile Cys Leu Phe Thr Leu
 145 150 155 160
 Ser Asp Asp Gly His Leu Val Ala Gln Ser Pro Ala Glu Val Thr Thr
 165 170 175
 Val Glu Gly Ala Gly Pro Arg His Met Val Phe His Pro Asn Gln Gln
 180 185 190
 Tyr Ala Tyr Val Val Asn Glu Leu Asn Ser Ser Val Asp Val Trp Glu
 195 200 205
 Leu Asn Asp Pro Asn Gly Gln Ile Glu Cys Val Gln Thr Leu Asp Met
 210 215 220
 Met Pro Ser Asp Phe Ser Asp Thr Arg Trp Ala Ala Asp Ile His Ile
 225 230 235 240
 Thr Pro Asp Gly Arg His Leu Tyr Ala Cys Asp Arg Thr Ser Ser Leu
 245 250 255
 Ile Thr Val Phe Ser Val Ser Glu Asp Gly Ser Val Leu Ala Val Glu
 260 265 270
 Gly Phe Gln Pro Thr Glu Thr Gln Pro Arg Gly Phe Asn Val Asp His
 275 280 285
 Ser Gly Lys Tyr Leu Ile Ala Ala Gly Gln Lys Ser His His Ile Ala
 290 295 300
 Leu Tyr Glu Ile Gln Gly Val Gln Gly Leu Leu Glu Glu Lys Gly Arg
 305 310 315 320
 Tyr Ala Val Gly Gln Gly Pro Met Trp Val Val Ile Asn Ala His
 325 330 335

<210> 7741
 <211> 419
 <212> PRT
 <213> Enterobacter cloacae

<400> 7741
 Met Ser Ile Gln Pro Met Thr Ser Gly Arg His Met Gln Gln Leu Asn
 1 5 10 15

Pro Asp Asp Val Ile Trp Arg Asn Ala Arg Leu Ala Thr Leu Ala Thr
 20 25 30
 Gly Glu Ala Glu Pro Tyr Gly Leu Arg Glu Gln His Ala Leu Val Val
 35 40 45
 Arg Gly Gln Thr Ile Leu Ala Ile Ile Pro Glu Ser Glu Ile Pro Ser
 50 55 60
 Gly His Cys Gln Cys Val Asp Leu Asp Gly Arg Leu Val Thr Pro Gly
 65 70 75 80
 Leu Ile Asp Cys His Thr His Leu Val Phe Gly Gly Asp Arg Ala Ala
 85 90 95
 Glu Trp Glu Gln Arg Leu Asn Gly Val Ser Tyr Gln Thr Ile Ser Ala
 100 105 110
 Gln Gly Gly Gly Ile Asn Ala Thr Val Thr Ala Thr Arg Asn Ser Ser
 115 120 125
 Pro Glu Thr Leu Leu Thr Val Ala Gln Gln Arg Leu Gln Arg Leu Met
 130 135 140
 Asn Glu Gly Val Thr Thr Val Glu Ile Lys Ser Gly Tyr Gly Leu Asn
 145 150 155 160
 Ala Glu Ala Glu Glu Lys Met Leu Leu Val Ala Arg Gln Leu Ser Leu
 165 170 175
 Asn Asn Leu Val Asp Ile Ser Pro Thr Leu Leu Ala Ala His Ala Val
 180 185 190
 Pro Ala Glu Tyr Arg Gln Asp Pro Asp Ala Tyr Leu Ala Leu Val Cys
 195 200 205
 Glu Gln Ile Met Pro Thr Leu Trp Gln Lys Glu Leu Phe Glu Ala Val
 210 215 220
 Asp Val Phe Cys Glu Asn Val Gly Phe Thr Pro Ala Gln Thr Glu Arg
 225 230 235 240
 Leu Phe Arg Ala Ala Ala Leu Gly Ile Pro Val Lys Gly His Val
 245 250 255
 Glu Gln Leu Ser Asn Leu Gly Gly Ala Ala Leu Val Ser Gln Tyr Lys
 260 265 270
 Gly Leu Ser Ala Asp His Ile Glu Tyr Leu Asp Asp Ala Gly Ile Gln
 275 280 285
 Ala Met Ala Gln Ser Gly Thr Val Ala Val Leu Leu Pro Gly Ala Phe
 290 295 300
 Tyr Phe Leu Gln Glu Arg Gln Arg Pro Pro Val Ala Gln Leu Arg Glu
 305 310 315 320
 Gln Gly Val Pro Met Ala Val Ala Thr Asp Tyr Asn Pro Gly Thr Ser
 325 330 335
 Pro Phe Ala Ser Leu His Leu Ala Met Asn Met Ala Cys Val Gln Phe
 340 345 350
 Gly Leu Thr Pro Glu Glu Ala Trp Ala Gly Val Thr Arg His Ala Ala
 355 360 365
 Gln Ala Leu Gly Arg Ala Ala Thr His Gly Gln Leu Lys Pro Gly Tyr
 370 375 380
 Val Ala Asp Phe Val Val Trp Glu Ala Asn His Pro Val Glu Met Val
 385 390 395 400
 Tyr Glu Pro Gly Arg Asn Pro Leu Tyr Gln Arg Val Phe Arg Gly Gln
 405 410 415
 Val Ala

<210> 7742

<211> 296

<212> PRT

<213> Enterobacter cloacae

<400> 7742

Leu Ser Val Ser Ala Glu Ala Val Asn Tyr Arg Arg Arg Ile Trp Trp
 1 5 10 15

Asn Leu Ile Arg Thr Thr Ile Gly Thr Val Arg Gly Arg Ser Leu Pro
 20 25 30
 Pro Asp Trp Pro Gly Lys Leu Leu Thr Gly Gly His Asn His Ile Gln
 35 40 45
 Gly Val Met Met Phe Ser Arg Ser Pro Leu Pro Gln Pro Ser Pro Pro
 50 55 60
 Ala Pro Phe Tyr Glu Lys Val Lys Gln Ala Ile Ser Glu Lys Ile Ala
 65 70 75 80
 Ala Gly Val Trp Arg Pro His Asp Arg Ile Pro Ser Glu Ala Glu Leu
 85 90 95
 Val Ala Gln Phe Gly Phe Ser Arg Met Thr Ile Asn Arg Ala Leu Arg
 100 105 110
 Glu Leu Thr Asp Glu Gly Leu Leu Val Arg Leu Gln Gly Val Gly Thr
 115 120 125
 Phe Val Ala Glu Pro Lys Gly Gln Ser Ala Leu Phe Glu Ile Arg Ser
 130 135 140
 Ile Ala Asp Glu Ile Ala Ala Arg Asn His Gln His His Cys Glu Val
 145 150 155 160
 Leu Val Leu Glu Glu Thr Gln Ala Ser Ala Glu Gln Ala Ile Glu Leu
 165 170 175
 Asn Val Thr Glu Gly Thr Arg Ile Phe His Ser Val Met Val His Tyr
 180 185 190
 Glu Asn Asp Ile Pro Val Gln Ile Glu Asp Arg Cys Val Asn Ala Glu
 195 200 205
 Arg Ile Pro Asp Tyr Leu Asn Gln Asp Tyr Thr Gln Thr Thr Pro His
 210 215 220
 Ala Tyr Leu Ser Leu Val Ala Pro Leu Thr Glu Gly Glu His Ile Val
 225 230 235 240
 Glu Ala Val Arg Ala Thr Pro Gln Glu Cys Glu Leu Leu Arg Ile Lys
 245 250 255
 Glu His Asp Pro Cys Leu Leu Ile Arg Arg Arg Thr Trp Ser Ser Ser
 260 265 270
 Gln Ile Val Ser His Ala Lys Leu Leu Phe Pro Gly Asn Arg Tyr Arg
 275 280 285
 Leu Gln Gly His Phe Met Ser
 290 295

<210> 7743

<211> 527

<212> PRT

<213> Enterobacter cloacae

<400> 7743

Leu Cys Gln Arg Ala Gly Pro Glu Pro Ala Asp Asp Pro Arg His Thr
 1 5 10 15
 Arg Lys Ala Cys Met Asn Ala Leu Thr Leu Thr Pro Gly Ser Leu Thr
 20 25 30
 Leu Lys Gln Leu Arg His Val Trp Arg Gln Pro Val Thr Leu Ser Leu
 35 40 45
 Asp Glu Ser Ala His Arg Ala Ile Asn Asp Ser Val Ala Cys Val Glu
 50 55 60
 Ala Ile Val Ala Glu Gly Arg Thr Ala Tyr Gly Ile Asn Thr Gly Phe
 65 70 75 80
 Gly Leu Leu Ala Gln Thr Arg Ile Ala Thr His Asp Leu Glu Asn Leu
 85 90 95
 Gln Arg Ser Leu Val Leu Ser His Ala Ala Gly Val Gly Gln Pro Leu
 100 105 110
 Asp Asp Glu Ile Val Arg Leu Met Met Val Leu Lys Ile Asn Ser Leu
 115 120 125
 Ala Arg Gly Phe Ser Gly Ile Arg Leu Ser Val Ile Gln Ala Leu Met
 130 135 140

Ala Leu Val Asn Ala Glu Val Tyr Pro Trp Ile Pro Ala Lys Gly Ser
 145 150 155 160
 Val Gly Ala Ser Gly Asp Leu Ala Pro Leu Ala His Met Ser Leu Leu
 165 170 175
 Leu Leu Gly Glu Gly Gln Ala Arg Trp Gln Gly Glu Trp Leu Pro Ala
 180 185 190
 Lys Glu Ala Leu Lys Lys Ala Gly Leu Thr Pro Ile Thr Leu Ala Ala
 195 200 205
 Lys Glu Gly Leu Ala Leu Leu Asn Gly Thr Gln Ala Ser Thr Ala Phe
 210 215 220
 Ala Leu Arg Gly Leu Phe Glu Ala Glu Asp Leu Phe Ala Ser Ala Val
 225 230 235 240
 Val Cys Gly Ala Leu Thr Thr Glu Ala Val Leu Gly Ser Arg Arg Pro
 245 250 255
 Phe Asp Ala Arg Ile His Glu Val Arg Gly Gln Arg Gly Gln Ile Asp
 260 265 270
 Ala Ala Ala Met Tyr Arg His Val Leu Thr Asp Thr Ser Asp Ile Ala
 275 280 285
 Glu Ser His His Asn Cys Glu Lys Val Gln Asp Pro Tyr Ser Leu Arg
 290 295 300
 Cys Gln Pro Gln Val Met Gly Ala Cys Leu Thr Gln Leu Arg Gln Ala
 305 310 315 320
 Ala Glu Val Leu Leu Val Glu Ala Asn Ala Val Ser Asp Asn Pro Leu
 325 330 335
 Val Phe Ala Gln Glu Asn Glu Val Val Ser Gly Gly Asn Phe His Ala
 340 345 350
 Glu Pro Val Ala Met Ala Ala Asp Asn Ile Ala Leu Ala Ile Ala Glu
 355 360 365
 Ile Gly Ala Leu Ser Glu Arg Arg Ile Ala Leu Met Met Asp Lys His
 370 375 380
 Met Ser Gln Leu Pro Pro Phe Leu Val Arg Asn Gly Gly Val Asn Ser
 385 390 395 400
 Gly Phe Met Ile Ala Gln Val Thr Ala Ala Ala Leu Ala Ser Glu Asn
 405 410 415
 Lys Ala Leu Ser His Pro His Ser Val Asp Ser Leu Pro Thr Ser Ala
 420 425 430
 Asn Gln Glu Asp His Val Ser Met Ala Pro Ala Ala Gly Arg Arg Leu
 435 440 445
 Trp Glu Met Ala Ser Asn Thr Arg Gly Val Leu Ala Val Glu Trp Leu
 450 455 460
 Ala Ala Cys Gln Gly Ile Asp Leu Arg Glu Gly Leu Thr Ser Ser Pro
 465 470 475 480
 Leu Leu Glu Gln Ala Arg His Thr Leu Arg Glu His Val Thr His Tyr
 485 490 495
 Asp Asp Asp Arg Phe Phe Ala Pro Asp Ile Asp Lys Ala Met Gln Leu
 500 505 510
 Leu Glu Glu Gly Arg Leu Val Gly Leu Leu Pro Ser Val Leu
 515 520 525

<210> 7744

<211> 398

<212> PRT

<213> Enterobacter cloacae

<400> 7744

Arg Arg His Arg Pro Val Leu Gln Arg Gly Ser His Met Thr Trp Gln
 1 5 10 15
 Ala Arg Ile Arg Thr Ala Leu Asp Glu Arg Arg Ala Ala Asp Ala Phe
 20 25 30
 Arg Val Arg Arg Val Val Glu Asn Gly Ala Gly Arg Phe Leu Thr Arg
 35 40 45

Glu Gly Glu Arg Phe Cys Asn Phe Ser Ser Asn Asp Tyr Leu Gly Leu
 50 55 60
 Ser Gln His Pro Gln Ile Val Arg Ala Trp Gln Gln Gly Ala Asp Arg
 65 70 75 80
 Tyr Gly Val Gly Ser Gly Gly Ser Gly His Val Ser Gly Tyr Thr Thr
 85 90 95
 Ala His Gln Ala Leu Glu Glu Glu Leu Ala Asp Trp Leu Gly Tyr Pro
 100 105 110
 Arg Ala Leu Leu Phe Ile Ser Gly Phe Ala Ala Asn Gln Ala Val Ile
 115 120 125
 Ala Ala Leu Met Gly Lys Asp Asp Arg Ile Val Ala Asp Arg Leu Ser
 130 135 140
 His Ala Ser Leu Leu Glu Ala Ala Ser Leu Ser Pro Ala Gln Leu Arg
 145 150 155 160
 Arg Phe Ala His Asn Asn Ala Ser Gln Leu Asn Val Leu Leu Gly Lys
 165 170 175
 Pro Cys Ser Gly Leu Gln Leu Ala Val Thr Glu Gly Val Phe Ser Met
 180 185 190
 Asp Gly Asp Ser Ala Pro Leu Ala Thr Leu His Asp Val Ala Lys Gln
 195 200 205
 Gln Asn Ala Trp Leu Leu Val Asp Asp Ala His Gly Ile Gly Val Thr
 210 215 220
 Gly Glu Glu Gly Arg Gly Ser Ala His Gln Gln Arg Val Arg Pro Glu
 225 230 235 240
 Leu Leu Val Val Thr Phe Gly Lys Gly Phe Gly Val Ser Gly Ala Ala
 245 250 255
 Val Leu Cys Ser Glu Pro Val Ala Asp Tyr Leu Val Gln Phe Ala Arg
 260 265 270
 His Leu Ile Tyr Ser Thr Ser Met Pro Pro Ala Gln Ala Val Ala Leu
 275 280 285
 Ser Ala Ser Leu Ala Val Ile Arg Gly Glu Asp Gly Ala Glu Arg Arg
 290 295 300
 Ala Arg Leu Ala Asp His Ile Gln Arg Phe Arg Arg Gly Ile Ser Glu
 305 310 315 320
 Leu Ser Tyr Arg Leu Thr Asp Ser His Ser Ala Ile Gln Pro Val Ile
 325 330 335
 Val Gly Glu Asn His Arg Ala Leu Met Val Ala Gln Ala Leu Arg Glu
 340 345 350
 Arg Gly Gln Trp Val Thr Ala Ile Arg Pro Pro Thr Val Pro Pro Gly
 355 360 365
 Thr Ala Arg Leu Arg Leu Thr Leu Thr Ala Ala His Glu Pro Gln Asp
 370 375 380
 Ile Asp Thr Leu Leu Glu Ala Leu Tyr Val Ser Arg Gln
 385 390 395

<210> 7745

<211> 359

<212> PRT

<213> Enterobacter cloacae

<400> 7745

Thr Asp Gly Glu Ile Val Met Leu Glu Leu Asn Phe Thr Gln Thr Leu
 1 5 10 15
 Gly Ser His Thr Leu Thr Leu Asn Glu Thr Leu Pro Ala Ser Gly Ile
 20 25 30
 Thr Ala Ile Phe Gly Val Ser Gly Ala Gly Lys Thr Ser Leu Ile Asn
 35 40 45
 Ala Ile Ser Gly Leu Thr Arg Pro Gln Ser Gly Arg Ile Val Leu Asn
 50 55 60
 Asn Arg Val Leu Asn Asp Ala Glu Lys Lys Val Cys Leu Ser Pro Asp
 65 70 75 80

Lys Arg Arg Ile Gly Tyr Val Phe Gln Asp Ala Arg Leu Phe Pro His
 85 90 95
 Tyr Ser Val Arg Gly Asn Leu Arg Tyr Gly Met Ala Lys Ser Met Ala
 100 105 110
 Gly Gln Phe Asn Lys Leu Val Ala Leu Leu Gly Ile Glu Pro Leu Leu
 115 120 125
 Asp Arg Leu Pro Ser Ser Leu Ser Gly Gly Glu Lys Gln Arg Val Ala
 130 135 140
 Ile Gly Arg Ala Leu Leu Thr Ala Pro Glu Leu Leu Leu Asp Glu
 145 150 155 160
 Pro Leu Ala Ser Leu Asp Ile Pro Arg Lys Arg Glu Leu Leu Pro Tyr
 165 170 175
 Leu Gln Arg Leu Ala Arg Glu Ile Asn Val Pro Met Leu Tyr Val Ser
 180 185 190
 His Ser Leu Asp Glu Ile Leu His Met Ala Asp Lys Val Leu Val Leu
 195 200 205
 Glu Ala Gly Arg Val Lys Ala Phe Gly Asn Leu Glu Glu Val Trp Gly
 210 215 220
 Ser Ser Val Met His Pro Trp Leu Pro Lys Glu Gln Gln Ser Ser Ile
 225 230 235 240
 Leu Lys Val Ser Val Leu Glu His His Pro His Tyr Ala Met Thr Ala
 245 250 255
 Leu Ala Leu Gly Asp Gln His Leu Trp Val Asn Lys Ile Asp Thr Pro
 260 265 270
 Ile Gln Ser Thr Leu Arg Ile Arg Ile Gln Ala Ser Asp Val Ser Leu
 275 280 285
 Val Leu Gln Pro Pro Leu Gln Thr Ser Ile Arg Asn Ile Leu Arg Ala
 290 295 300
 Lys Val Ala Gln Cys Phe Asp Asp Asn Gly Gln Val Glu Val Gln Leu
 305 310 315 320
 Glu Val Gly Ser Arg Thr Leu Trp Ala Arg Ile Ser Pro Trp Ala Arg
 325 330 335
 Asp Glu Leu Gly Ile Lys Pro Gly Leu Trp Leu Tyr Ala Gln Ile Lys
 340 345 350
 Ser Val Ser Ile Thr Ala
 355

<210> 7746

<211> 118

<212> PRT

<213> Enterobacter cloacae

<400> 7746

Ser Ala Leu Arg Phe Asn Glu Leu Gly Gln Thr Pro Ser Phe Ala Val
 1 5 10 15
 Ala Phe Ala Gly Asp Ile His Leu Ile Val Pro Gly Pro Phe Thr Phe
 20 25 30
 Gln Thr Gln Arg Met Leu Asp Lys Phe Cys Glu Gly Ile Gln Phe Gly
 35 40 45
 Gly Val Phe Ile Gly Gln Gly Lys Phe Pro Asp Cys Phe Asp Val Phe
 50 55 60
 Arg Arg Leu Ala Gln Gly Gly Asn Leu Ser Lys His Arg Thr Leu Arg
 65 70 75 80
 Phe Arg Gln Arg Gln Ser Pro Val Ala Gly Ala Asp His Met Ala Gly
 85 90 95
 Arg Ala Phe Ile His His Gly Val Ile His Ile His Gln Ala Val Asn
 100 105 110
 Gly Val Leu Ile Gln
 115

<210> 7747

<211> 587

<212> PRT

<213> Enterobacter cloacae

<400> 7747

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Pro | Cys | Val | Cys | Leu | Ser | Ile | Gln | Val | Tyr | Leu | Asn | Ala | Ser |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ser | Val | Pro | Tyr | Glu | Glu | His | Thr | Met | Ser | Ser | Asp | Lys | Tyr | Arg | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Asp | Val | Arg | Ala | Ala | Arg | Gly | Thr | Thr | Leu | Thr | Ala | Lys | Ser | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Thr | Glu | Ala | Pro | Leu | Arg | Met | Leu | Met | Asn | Asn | Leu | Asp | Pro | Glu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Val | Ala | Glu | Asn | Pro | His | Glu | Leu | Val | Val | Tyr | Gly | Gly | Ile | Gly | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ala | Arg | Asn | Trp | Ala | Cys | Tyr | Asp | Ala | Ile | Val | Glu | Ser | Leu | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asn | Leu | Glu | Asn | Asp | Glu | Thr | Leu | Leu | Val | Gln | Ser | Gly | Lys | Pro | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Val | Phe | Lys | Thr | His | Lys | Asn | Ala | Pro | Arg | Val | Leu | Ile | Ala | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Asn | Leu | Val | Pro | His | Trp | Ala | Thr | Trp | Glu | His | Phe | Asn | Glu | Leu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Asp | Ala | Lys | Gly | Leu | Ala | Met | Tyr | Gly | Gln | Met | Thr | Ala | Gly | Ser | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Tyr | Ile | Gly | Ser | Gln | Gly | Ile | Val | Gln | Gly | Thr | Tyr | Glu | Thr | Phe |
| | | | 165 | | | | | | 170 | | | | | | 175 |
| Val | Glu | Ala | Gly | Arg | Gln | His | Tyr | Asn | Gly | Ser | Leu | Lys | Gly | Arg | Trp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Leu | Thr | Ala | Gly | Leu | Gly | Gly | Met | Gly | Gly | Ala | Gln | Pro | Leu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Thr | Leu | Ala | Gly | Ala | Cys | Ser | Leu | Asn | Ile | Glu | Cys | Gln | Gln | Ser |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Arg | Ile | Asp | Phe | Arg | Leu | Arg | Thr | Arg | Tyr | Val | Asp | Glu | Gln | Ala | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Leu | Asp | Asp | Ala | Leu | Ala | Arg | Ile | Lys | Lys | Tyr | Thr | Ser | Glu | Gly |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Lys | Ala | Val | Ser | Val | Ala | Leu | Cys | Gly | Asn | Ala | Ala | Asp | Ile | Leu | Pro |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Glu | Leu | Val | Ala | Arg | Gly | Val | Arg | Pro | Asp | Leu | Val | Thr | Asp | Gln | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Ala | His | Asp | Pro | Leu | His | Gly | Tyr | Leu | Pro | Lys | Gly | Trp | Thr | Trp |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Glu | Asp | Tyr | Gln | Gln | Lys | Ala | Glu | Thr | Asp | Pro | Glu | Gly | Thr | Val | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Ala | Lys | Arg | Ala | Met | Ala | Glu | His | Val | Ser | Ala | Met | Leu | Ala | Phe |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ser | Lys | Met | Gly | Ile | Pro | Thr | Phe | Asp | Tyr | Gly | Asn | Asn | Ile | Arg | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Ala | Lys | Glu | Met | Gly | Val | Asn | Asn | Ala | Phe | Asp | Phe | Pro | Gly | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Val | Pro | Ala | Tyr | Ile | Arg | Pro | Leu | Phe | Cys | Arg | Gly | Ile | Gly | Pro | Phe |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Arg | Trp | Val | Ala | Leu | Ser | Gly | Asp | Pro | Glu | Asp | Ile | Tyr | Lys | Thr | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Arg | Val | Lys | Glu | Ile | Val | Ala | Asp | Asp | Glu | His | Leu | His | Arg | Trp |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Leu | Asp | Met | Ala | Arg | Glu | Arg | Ile | Asn | Phe | Gln | Gly | Leu | Pro | Ala | Arg |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Cys | Trp | Val | Gly | Leu | Glu | Trp | Arg | Gln | Lys | Leu | Gly | Leu | Ala | Phe |
| | | 435 | | | | | 440 | | | | | 445 | | | |

Asn Glu Met Val Arg Ser Gly Glu Val Ser Ala Pro Ile Val Ile Gly
 450 455 460
 Arg Asp His Leu Asp Ser Gly Ser Val Ala Ser Pro Asn Arg Glu Thr
 465 470 475 480
 Glu Ala Met Arg Asp Gly Ser Asp Ala Val Ser Asp Trp Pro Leu Leu
 485 490 495
 Asn Ala Leu Leu Asn Thr Ala Ser Gly Ala Thr Trp Val Ser Leu His
 500 505 510
 His Gly Gly Gly Val Gly Met Gly Phe Ser Gln His Ser Gly Met Val
 515 520 525
 Ile Val Cys Asp Gly Thr Asp Glu Ala Ala Arg Ile Ala Arg Val
 530 535 540
 Leu His Asn Asp Pro Ala Thr Gly Val Met Arg His Ala Asp Ala Gly
 545 550 555 560
 Tyr Glu Ile Ala Ile Asp Cys Ala Lys Glu Gln Gly Leu Asn Leu Pro
 565 570 575
 Met Ile Pro Ala Thr Gln Gly Lys Pro Ala
 580 585

<210> 7748

<211> 360

<212> PRT

<213> Enterobacter cloacae

<400> 7748

Thr Glu Pro Thr Ile Asn Lys Thr Leu Trp Arg Ser Pro Met Ala His
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 His Ala Arg Trp Thr Met Ser Gln Val Thr Glu Leu Phe Asn Lys Pro
 20 25 30
 Phe Leu Glu Leu Met Phe Glu Ala Gln Gln Val His Arg Gln His Phe
 35 40 45
 Asp Pro Arg His Val Gln Val Ser Thr Leu Leu Ser Ile Lys Thr Gly
 50 55 60
 Ala Cys Pro Glu Asp Cys Lys Tyr Cys Pro Gln Ser Ala Arg Tyr Lys
 65 70 75 80
 Thr Gly Leu Glu Ser Glu Arg Leu Met Glu Val Glu Gln Val Leu Asp
 85 90 95
 Ser Ala Arg Lys Ala Lys Asn Ala Gly Ser Thr Arg Phe Cys Met Gly
 100 105 110
 Ala Ala Trp Lys Asn Pro His Asp Arg Asp Met Pro Tyr Leu Glu Gln
 115 120 125
 Met Val Lys Gly Val Lys Glu Met Gly Leu Glu Ala Cys Met Thr Leu
 130 135 140
 Gly Thr Leu Asn Glu Glu Gln Ala Gln Arg Leu Ser Ala Ala Gly Leu
 145 150 155 160
 Asp Tyr Tyr Asn His Asn Leu Asp Thr Ser Pro Glu Phe Tyr Gly Asn
 165 170 175
 Ile Ile Thr Thr Arg Thr Tyr Gln Glu Arg Leu Asp Thr Leu Asp Lys
 180 185 190
 Val Arg Asp Ala Gly Ile Lys Val Cys Ser Gly Gly Ile Val Gly Leu
 195 200 205
 Gly Glu Thr Val Lys Asp Arg Ala Gly Leu Leu Leu Gln Leu Ala Asn
 210 215 220
 Leu Pro Thr Pro Pro Glu Ser Val Pro Ile Asn Met Leu Val Lys Val
 225 230 235 240
 Lys Gly Thr Pro Leu Ala Asp Asn Glu Asp Val Asp Ala Phe Asp Phe
 245 250 255
 Ile Arg Thr Ile Ala Val Ala Arg Ile Met Met Pro Thr Ser Tyr Val
 260 265 270
 Arg Leu Ser Ala Gly Arg Glu Gln Met Ser Glu Gln Thr Gln Ala Met
 275 280 285

Cys Phe Met Ala Gly Ala Asn Ser Ile Phe Tyr Gly Cys Lys Leu Leu
 290 295 300
 Thr Thr Pro Asn Pro Glu Asp Lys Asp Val Gln Leu Phe Arg Lys
 305 310 315 320
 Leu Gly Leu Asn Pro His Gln Thr Gly Val Gln Val Gly Asp Asn Glu
 325 330 335
 Gln Gln Gln Gln Leu Glu Gln Gln Ile Phe Asn Ala Asp Thr Asp Gln
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 Phe Tyr Asn Ala Ala Ala Ile
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<210> 7749

<211> 270

<212> PRT

<213> Enterobacter cloacae

<400> 7749

Arg Ser Arg Gln Arg Met Ser Arg Arg Ile Ser Ile Arg Phe Trp Arg
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 His Cys Met Ser Leu Val Asn Lys Gln Ala Val Ala Ala Phe Gly
 20 25 30
 Arg Ala Ala Gln Ser Tyr Ser Gln His Asp Glu Leu Gln Arg Leu Ser
 35 40 45
 Ala Arg Gly Leu Leu Ala Ala Leu Gly Asp Gly Arg Phe Ala Gln Val
 50 55 60
 Leu Asp Ala Gly Cys Gly Pro Gly Gly Asn Ser Arg Tyr Trp Arg Ala
 65 70 75 80
 Thr Gly Ser His Val Thr Ala Leu Asp Leu Ser Ala Gln Met Leu Asp
 85 90 95
 Glu Ala Arg Gln Gln Ser Ala Asp Arg Tyr Leu Val Ala Asp Ile
 100 105 110
 Glu Ala Ile Pro Leu Glu Asp Ala Leu Phe Asp Leu Val Trp Ser His
 115 120 125
 Leu Ala Val Gln Trp Cys Ala Ser Leu Pro Gln Ala Leu Arg Glu Leu
 130 135 140
 Tyr Arg Val Ala Arg Pro Gly Gly Ala Val Ala Phe Thr Thr Leu Leu
 145 150 155 160
 Glu Ser Ser Leu Pro Glu Leu Asn Gln Ala Trp Arg Ala Val Asp Ala
 165 170 175
 Gln Pro His Ala Asn Arg Phe Leu Ser His Glu Gln Val Thr Gln Ala
 180 185 190
 Leu Ala Gly Trp Arg Tyr Arg Ser Val Val Gln Thr Val Thr Leu Glu
 195 200 205
 Phe Ser Asp Ala Leu Ser Ala Met Arg Ser Leu Lys Gly Ile Gly Ala
 210 215 220
 Thr His Leu His Ala Gly Arg Glu Lys Lys Pro Leu Thr Arg Gly Gln
 225 230 235 240
 Leu Gln Arg Leu Glu Leu Ala Trp Pro Gln Glu Arg Gly Arg Phe Pro
 245 250 255
 Leu Ser Tyr His Leu Phe His Gly Ile Ile Glu Arg Asp
 260 265 270

<210> 7750

<211> 239

<212> PRT

<213> Enterobacter cloacae

<400> 7750

Thr Leu Arg Ile Tyr Asp Ser Arg Met Ile Leu Thr Glu Pro Glu Trp
 1 5 10 15
 Gln Ala Val Leu Leu Ser Leu Lys Val Ser Ser Leu Ala Val Ala Leu

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Leu | Gly | Phe | Glu | Cys | Asp | Glu | Gly | Val | Lys | Arg | Asn | Gln | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Pro | Gly | Ala | Ala | Gln | Ala | Pro | Asp | Val | Leu | Arg | Gly | Ala | Leu | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Met | Ala | Ser | His | Gln | Gly | His | Ala | Arg | Leu | Val | Asp | Met | Gly | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Tyr | Val | Glu | Gly | His | Ala | Leu | Glu | Ala | Ala | Gln | Gln | Ala | Leu | Ser |
| | | 115 | | | | | | 120 | | | | | 125 | | |
| Glu | Ala | Ile | Thr | Ala | Cys | Gln | Gln | Ser | Gly | Met | Arg | Thr | Leu | Val | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Gly | Gly | His | Glu | Thr | Ala | Trp | Ala | His | Gly | Arg | Gly | Val | Leu | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Phe | Pro | Asn | Asp | Arg | Ile | Ala | Val | Ile | Asn | Leu | Asp | Ala | His | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Leu | Arg | Lys | Ala | Glu | Arg | Ala | Thr | Ser | Gly | Thr | Pro | Phe | Arg | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Ala | His | Tyr | Cys | Ala | Ser | Gln | Ser | Arg | Val | Phe | His | Tyr | Ala | Cys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Gly | Val | Ser | Arg | Ala | Ala | Asn | Thr | Gln | Ala | Leu | Trp | Glu | Glu | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Arg | Leu | Asn | Val | Thr | Leu | Val | Glu | Asp | Leu | Asp | Phe | Arg | Arg | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Leu | Ser | Ala | Leu | Asp | Ser | Val | Leu | Thr | Gln | Ala | Asp | Arg | Val | Tyr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Thr | Val | Asp | Leu | Asp | Val | Leu | Pro | Ala | Ala | Glu | Met | Pro | Ala | Val |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Ser | Ala | Pro | Ala | Ala | Leu | Gly | Ile | Pro | Ala | Leu | Asp | Leu | Phe | Pro | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Glu | Arg | Ile | Cys | Arg | Ser | Gly | Lys | Leu | Gln | Ala | Ala | Asp | Leu | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Glu | Phe | Asn | Pro | His | Tyr | Asp | Arg | Asp | Gly | Gln | Gly | Ala | Lys | Leu | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Arg | Leu | Ala | Trp | Gln | Ile | Ala | His | Trp | Trp | Ala | | | | |
| | | | | 325 | | | | | 330 | | | | | | |

<210> 7753

<211> 279

<212> PRT

<213> Enterobacter cloacae

<400> 7753

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Arg | Arg | Thr | Cys | Thr | Pro | Asp | Gly | Arg | Arg | Asn | Pro | Leu | Pro | Ala |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Val | Asn | Ser | Ser | Val | Ser | Ser | Trp | Pro | Gly | Arg | Arg | Ser | Gly | Ala | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Arg | Ser | Leu | Ile | Ile | Phe | Phe | Met | Gly | Leu | Leu | Asn | Val | Thr | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Tyr | Phe | Val | Thr | Gly | Thr | Asp | Thr | Glu | Val | Gly | Lys | Thr | Val | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Ala | Leu | Leu | Gln | Ala | Ala | Arg | Leu | Leu | Gly | Lys | Thr | Thr | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Tyr | Lys | Pro | Val | Ala | Ser | Gly | Ser | Glu | Met | Thr | Pro | Glu | Gly | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Asn | Thr | Asp | Ala | Leu | Ala | Leu | Gln | Arg | Asn | Ser | Ser | Leu | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Tyr | Ser | Ala | Val | Asn | Pro | Tyr | Thr | Phe | Ala | Glu | Pro | Thr | Ser | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Ile | Val | Ser | Ala | Asp | Glu | Asp | Arg | Pro | Ile | Asp | Phe | Ser | Val | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Ser | Gly | Leu | Arg | Asp | Leu | Glu | Thr | Gln | Ala | Asp | Trp | Val | Leu | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |


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<210> 7754
<211> 117
<212> PRT
<213> Enterobacter cloacae
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<220>
<221> UNSURE
<222> (43)

[illegible]

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<210> 7755
<211> 276
<212> PRT
<213> Enterobacter cloacae
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<400> 7755
Val Ile Pro Lys Asn Gly Leu Phe Leu Ile Ile Met Lys Phe Leu Ala
1 5 10 15
Gly Val Leu Gln Thr Ser Leu Cys Ala Ser Pro Pro His Ile Phe Lys


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<210> 7756
<211> 166
<212> PRT
<213> Enterobacter cloacae
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[illegible]

165

<210> 7757

<211> 379

<212> PRT

<213> Enterobacter cloacae

<400> 7757

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Glu | Glu | Leu | His | Pro | Cys | Ala | Leu | Phe | Leu | Gly | Asp | Gly | Ser | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Ser | Thr | Val | Asp | Ala | Phe | Phe | Ile | Asn | Leu | Pro | Lys | Gln | Pro | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Val | Val | Gly | Pro | Ala | Gly | Ala | Gln | Gly | Val | Thr | His | Thr | Ser | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ala | Ala | Val | Asp | Ala | Ala | Ile | Thr | Lys | His | Ser | Ala | Ser | Arg | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Ile | Ala | Ile | Leu | Pro | Gly | Glu | Tyr | Glu | Gly | Thr | Val | Tyr | Val | Pro |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Ala | Ala | Pro | Gly | Ser | Ile | Thr | Leu | Tyr | Gly | Leu | Gly | Glu | Lys | Ala | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Val | Lys | Ile | Gly | Leu | Ala | Ile | Asp | Ser | Glu | Ile | Asp | Ser | Thr | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Trp | Arg | His | Leu | Val | Asn | Pro | Ala | Gly | Lys | Tyr | Met | Pro | Gly | Lys | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Trp | Tyr | Met | Phe | Asp | Asn | Cys | Gln | Arg | Lys | Arg | Ala | Ala | Thr | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Val | Met | Cys | Ser | Ala | Val | Phe | Trp | Ser | Gln | Asn | Asn | Gly | Leu | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Gln | Asn | Leu | Thr | Ile | Gln | Asn | Thr | Leu | Gly | Asp | Ser | Val | Asp | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Asn | His | Gln | Ala | Val | Ala | Leu | Arg | Ser | Asp | Gly | Asp | Lys | Val | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Asn | Asn | Val | Asn | Ile | Leu | Gly | Arg | Gln | Asn | Thr | Phe | Phe | Val | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asn | Ser | Gly | Val | Gln | Asn | Thr | Leu | Gln | Asn | Asn | Arg | Leu | Thr | Arg | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Val | Thr | Asn | Ser | Tyr | Ile | Glu | Gly | Asp | Val | Asp | Met | Val | Ser | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Gly | Ala | Val | Val | Phe | Asp | Asn | Thr | Asp | Phe | Arg | Val | Val | Asn | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Thr | Gln | Gln | Glu | Gly | Tyr | Val | Phe | Ala | Pro | Ala | Thr | Gln | Ser | Asn |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Phe | Tyr | Gly | Phe | Leu | Ala | Val | Asn | Ser | Arg | Phe | Thr | Ala | Ala | Gly |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Asp | Gly | Val | Ala | Gln | Leu | Gly | Arg | Ser | Leu | Asp | Val | Asp | Ser | Ala | Thr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Gly | Gln | Val | Val | Ile | Arg | Asp | Ser | Val | Ile | Asn | Glu | Gly | Phe | Asn |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Met | Ala | Lys | Pro | Trp | Ala | Asp | Ala | Ala | Ile | Ser | Lys | Arg | Pro | Phe | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Asn | Thr | Gly | Thr | Val | Asp | Asp | Lys | Asp | Asn | Val | Gln | Arg | Asn | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Asp | Ala | Asn | Phe | Asn | Arg | Met | Trp | Glu | Tyr | Asn | Asn | Arg | Gly | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Ser | Lys | Val | Val | Ala | Glu | Pro | Lys | Gln | | | | | | |
| | 370 | | | | | 375 | | | | | | | | | |

<210> 7758

<211> 450

<212> PRT

<213> Enterobacter cloacae

<400> 7758

Leu Ser Val Arg Phe Ile Leu Val Asn Leu Lys Leu Phe Lys Met Val
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 Tyr Lys Ser Ile Met Thr Gln Asp Asp Leu Ala Phe Asp Lys Gln His
 20 25 30
 Ile Trp His Pro Tyr Thr Ser Thr Thr Arg Pro Leu Pro Val Tyr Pro
 35 40 45
 Val Ala Ser Ala His Gly Cys Glu Leu His Leu Ala Ser Gly Glu Arg
 50 55 60
 Leu Val Asp Gly Met Ser Ser Trp Trp Ala Ala Ile His Gly Tyr Asn
 65 70 75 80
 His Pro Arg Leu Asn Ala Ala Met Lys Ala Gln Ile Asp Gln Met Ser
 85 90 95
 His Val Met Phe Gly Gly Ile Thr His Gln Pro Ala Val Asp Leu Cys
 100 105 110
 Arg Arg Leu Val Ala Met Thr Pro Glu Ser Leu Glu Cys Val Phe Leu
 115 120 125
 Ala Asp Ser Gly Ser Val Ala Val Glu Val Ala Met Lys Met Ala Leu
 130 135 140
 Gln Tyr Trp His Ala Lys Gly Glu Thr Arg Gln Arg Phe Leu Thr Phe
 145 150 155 160
 Arg Asn Gly Tyr His Gly Asp Thr Phe Gly Ala Met Ser Val Cys Asp
 165 170 175
 Pro Asp Asn Ser Met His Ser Leu Trp Lys Gly Tyr Leu Pro Glu Asn
 180 185 190
 Leu Phe Ala Pro Ala Pro Gln Ser Arg Phe Asp Gly Glu Trp Asp Glu
 195 200 205
 Met Asp Met Val Gly Phe Ala Arg Leu Met Ala Ala His Arg His Glu
 210 215 220
 Ile Ala Ala Val Ile Leu Glu Pro Ile Val Gln Gly Ala Gly Gly Met
 225 230 235 240
 Arg Ile Tyr His Pro Glu Trp Leu Lys Arg Ile Arg Lys Met Cys Asp
 245 250 255
 Arg Glu Gly Ile Leu Leu Ile Ala Asp Glu Ile Ala Thr Gly Phe Gly
 260 265 270
 Arg Thr Gly Lys Leu Phe Ala Cys Glu His Ala Gly Ile Ala Pro Asp
 275 280 285
 Ile Leu Cys Leu Gly Lys Ala Leu Thr Gly Gly Thr Met Thr Leu Ser
 290 295 300
 Ala Thr Leu Thr Thr Arg Gln Val Ala Asp Thr Ile Ser Asp Gly Asp
 305 310 315 320
 Ala Gly Cys Phe Met His Gly Pro Thr Phe Met Gly Asn Pro Leu Ala
 325 330 335
 Cys Ala Val Ala Ser Glu Ser Leu Ala Ile Leu Glu Ser Gly Ala Trp
 340 345 350
 Gln Thr Gln Val Ala Ala Ile Glu Ala Gln Leu Lys Gln Gln Leu Ser
 355 360 365
 Ala Ala Ala Glu Ala Glu Tyr Val Ala Asp Val Arg Val Leu Gly Ala
 370 375 380
 Ile Gly Val Ile Glu Thr Lys His Pro Val Asn Met Ala Ala Leu Gln
 385 390 395 400
 Arg Phe Phe Val Asp Gln Gly Val Trp Val Arg Pro Phe Gly Lys Leu
 405 410 415
 Ile Tyr Leu Met Pro Pro Tyr Ser Ile Ser Ala Asp Gln Leu Arg Lys
 420 425 430
 Leu Thr Gly Ala Val Val Glu Ala Val Asn Thr Ser Ala His Phe Ala
 435 440 445
 Ile
 450

<210> 7759
 <211> 167
 <212> PRT
 <213> Enterobacter cloacae

<400> 7759

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Lys | Lys | Ala | Gly | Tyr | Phe | Val | Tyr | Pro | Asp | Lys | Thr | Cys | Ile | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ser | Ile | Thr | Leu | Asn | Ile | Ser | Arg | Ile | Ser | Arg | Leu | Ala | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Phe | Gly | Val | Thr | Leu | Ser | Ala | Cys | Ser | Ser | Thr | Pro | Pro | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Gln | Pro | Ser | Glu | Gln | Val | Ala | Pro | Gly | Thr | Ala | Ser | Arg | Pro | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Ala | Ala | Glu | Ala | Lys | Asn | Phe | Thr | Arg | Ala | His | Tyr | Phe | Ser |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Ala | Met | Asp | Pro | Asn | Ala | Ala | Pro | Trp | Thr | Leu | Phe | Leu | Leu | Thr | Cys |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Arg | Asn | Ser | Gln | Thr | Ser | Leu | Ser | Ala | Arg | Pro | Gly | Arg | Arg | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| His | Thr | Pro | Leu | Phe | Arg | Gln | Pro | Leu | Met | Pro | Gln | Ser | Pro | Asn | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | His | Leu | Val | Ser | Thr | Leu | Pro | Ser | Cys | Arg | Val | Asn | Thr | Lys | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Phe | Met | Phe | Arg | Arg | His | Arg | Glu | Ala | Leu | His | Phe | Thr | Ala | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Lys | Lys | Arg | Ser | Thr | | | | | | | | | | |
| | | | | 165 | | | | | | | | | | | |

<210> 7760
 <211> 301
 <212> PRT
 <213> Enterobacter cloacae

<400> 7760

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Val | Val | Arg | Asp | Phe | Ala | Gly | Phe | Arg | Ser | Arg | Cys | Thr | Ile | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Asp | Leu | Lys | Phe | Asn | Ile | Asn | Pro | Glu | Glu | Lys | Met | Thr | Ser | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ile | Ala | Leu | Asp | Leu | Asp | Gly | Thr | Leu | Leu | Thr | Pro | Gln | Lys | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Pro | Ser | Ser | Leu | Glu | Ala | Leu | Lys | Arg | Ala | Gln | Glu | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Tyr | Gln | Leu | Leu | Ile | Val | Thr | Gly | Arg | His | His | Val | Ala | Ile | His | Pro |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Phe | Tyr | Gln | Ala | Leu | Gly | Leu | Asp | Thr | Pro | Ala | Ile | Cys | Cys | Asn | Gly |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Thr | Tyr | Leu | Tyr | Asp | Tyr | Gln | Ala | Lys | Lys | Val | Leu | Ala | Ser | Asp | Pro |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Leu | Pro | Val | Thr | Gln | Ala | Leu | Gln | Leu | Ile | Asp | Leu | Leu | Asp | Glu | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Ile | His | Gly | Leu | Met | Tyr | Val | Asp | Asn | Ala | Met | Val | Tyr | Glu | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Thr | Gly | His | Val | Ile | Arg | Thr | Ser | Asn | Trp | Ala | Leu | Ser | Leu | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Ala | Gln | Arg | Pro | Val | Phe | Thr | Gln | Val | Ser | Ser | Leu | Arg | Gln | Ala |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Ala | Glu | Asp | Val | Glu | Ala | Ile | Trp | Lys | Phe | Ala | Leu | Thr | Asp | Glu | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Ala | Lys | Leu | Asn | Thr | Phe | Ala | Lys | Leu | Val | Glu | His | Thr | Leu | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Leu Glu Cys Glu Trp Ser Trp His Asp Gln Val Asp Ile Ala Arg Lys
 210 215 220
 Gly Asn Ser Lys Gly Arg Arg Leu Thr Gln Phe Val Glu Ser Gln Gly
 225 230 235 240
 Gly Ser Met Gln Asp Val Ile Ala Phe Gly Asp Asn Tyr Asn Asp Ile
 245 250 255
 Ser Met Leu Glu Ala Ala Gly Thr Gly Val Ala Met Gly Asn Ala Asp
 260 265 270
 Asp Ala Val Lys Ala Arg Ala Asp Val Val Ile Gly Asp Asn Thr Thr
 275 280 285
 Asp Ser Ile Ala Gln Tyr Ile Tyr Thr His Leu Leu
 290 295 300

<210> 7761

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7761

Trp Glu Ala Cys Ser Thr Ala Gly Glu Lys Leu Gly Val Ala Trp Leu
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 Ala Ser Pro Ala Leu Ala Gln Glu Ala Pro Ala Ala Gly Pro Ile Glu
 20 25 30
 Ala Gln Thr Pro Pro Val Asp Ala Glu Pro Asn Asp Val Val Val Thr
 35 40 45
 Gly Ser Arg Ile Pro Gln Pro Asn Leu Glu Gly Ala Ser Pro Val Thr
 50 55 60
 Val Val Asn Ser Gln Asp Leu Lys Leu Gln Gly Thr Thr Arg Val Glu
 65 70 75 80
 Asp Leu Leu Asn Ser Leu Pro Gln Val Phe Ala Gly Gln Ala Ser Thr
 85 90 95
 Leu Ser Asn Gly Ala Asp Gly Thr Ala Thr Val Asp Leu Arg Gly Leu
 100 105 110
 Gly Pro Thr Arg Thr Leu Val Leu Val Asn Gly Arg Arg Leu Met Pro
 115 120 125
 Gly Asp Pro Thr Thr Ser Ala Ala Asp Leu Asn Ser Ile Pro Ala Ala
 130 135 140
 Leu Ile Lys Arg Val Glu Val Leu Thr Gly Gly Ala Ser Ser Thr Tyr
 145 150 155 160
 Gly Ala Asp Ala Val Ala Gly Val Val Asp Leu Met Ser Ser Leu Arg
 165 170 175
 Gly Arg Pro Ile Pro Pro Tyr Thr Pro
 180 185

<210> 7762

<211> 86

<212> PRT

<213> Enterobacter cloacae

<400> 7762

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 20 25 30
 Lys Arg Arg Phe Leu Pro Asn Leu His Ser His Arg Phe Trp Val Glu
 35 40 45
 Ser Glu Lys Arg Phe Val Thr Leu Arg Val Ser Ala Lys Gly Met Arg
 50 55 60
 Val Ile Asp Lys Lys Gly Ile Asp Thr Val Leu Ser Glu Leu Arg Ala
 65 70 75 80
 Arg Gly Glu Lys Tyr

85

<210> 7763
 <211> 259
 <212> PRT
 <213> Enterobacter cloacae

<220>
 <221> UNSURE
 <222> (259)

<400> 7763

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| Glu | Ser | Glu | Lys | Met | Phe | Lys | Ile | Thr | Val | Cys | Leu | Leu | Thr | Phe | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Glu | Arg | Thr | Leu | His | Asp | Val | Ile | Pro | Pro | Leu | Leu | Lys | Ile | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Glu | Phe | Val | Val | Val | Asp | Ser | Gly | Ser | Thr | Asp | Ala | Thr | Ile | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Cys | Gln | Ser | Tyr | Gly | Leu | Ser | Ala | Ile | Phe | Lys | Lys | Tyr | Ser | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| His | Gly | Glu | Gln | Met | Asn | His | Ala | Val | Ser | His | Ala | His | Asn | Asp | Trp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Leu | Cys | Met | Asp | Ser | Asp | Glu | Ile | Leu | Asp | Gln | Glu | Thr | Val | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Ile | Leu | Lys | Leu | Lys | Met | Gly | Asp | Glu | Pro | Glu | Pro | Asp | Met | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Trp | Arg | Ile | Cys | Arg | His | Trp | Phe | Val | Leu | Gly | Glu | Asn | Val | Arg | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Tyr | Pro | Val | Ser | Ser | Pro | Asp | Tyr | Pro | Val | Arg | Leu | Phe | Asn | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Gln | Ser | Arg | Phe | Asn | Asn | Arg | Pro | Val | Asp | Asp | Gln | Val | Glu | Gly |
| | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Leu | His | Ser | Glu | Arg | Ile | Pro | Gly | Tyr | Val | Arg | His | Asp | Thr | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Tyr | Ser | Leu | His | Glu | Leu | Phe | Asn | Lys | Leu | Asn | Gly | Tyr | Ser | Thr | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Val | Gln | Tyr | Gln | Thr | Ile | Arg | Pro | Ser | Leu | Gly | Arg | Gly | Ala | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Ala | Ile | Gly | Ala | Phe | Phe | Lys | Trp | Tyr | Leu | Phe | Ser | Gly | Ala | Trp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Gln | Gly | Lys | Val | Gly | Val | Val | Thr | Gly | Phe | Tyr | Ala | Thr | Ala | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Phe | Leu | Lys | Tyr | Phe | Lys | Ala | Trp | Tyr | Gln | Asn | Arg | Glu | Lys | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |

Asp Ser Xaa

<210> 7764
 <211> 61
 <212> PRT
 <213> Enterobacter cloacae

<400> 7764

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Gly | Asn | Lys | Ser | Trp | Leu | Lys | Val | Phe | Ala | Lys | Lys | Ile | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ser | Ser | Ala | Gly | Thr | Gly | His | Phe | Tyr | Thr | Thr | Thr | Lys | Asn | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Thr | Lys | Pro | Glu | Lys | Leu | Glu | Leu | Lys | Lys | Phe | Asp | Pro | Val | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Gln | His | Val | Leu | Tyr | Lys | Glu | Ala | Lys | Ile | Lys | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | |

<210> 7765

<211> 292

<212> PRT

<213> Enterobacter cloacae

<400> 7765

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His Leu Asn Gly Gly Thr Met Pro Glu Leu Pro Glu Val Glu Thr Ser
20      25      30
Arg Arg Gly Ile Glu Pro His Leu Val Gly Ala Thr Ile Leu His Ala
35      40      45
Val Val Arg Asn Gly Arg Leu Arg Trp Pro Val Ser Asp Glu Ile His
50      55      60
Ala Leu Ser Asp Lys Pro Val Leu Ser Val Gln Arg Arg Ala Lys Tyr
65      70      75      80
Leu Leu Leu Glu Leu Pro Asp Gly Trp Ile Ile Ile His Leu Gly Met
85      90      95
Ser Gly Ser Leu Arg Ile Leu Thr Glu Glu Leu Pro Ala Glu Lys His
100     105     110
Asp His Val Asp Leu Val Met Ser Asn Gly Lys Val Leu Arg Tyr Thr
115     120     125
Asp Pro Arg Arg Phe Gly Ala Trp Leu Trp Thr Lys Glu Leu Glu Gly
130     135     140
His Asn Val Leu Ala His Leu Gly Pro Glu Pro Leu Ser Glu Ala Phe
145     150     155     160
Asn Ala Asp Tyr Leu Lys Glu Lys Cys Ala Lys Lys Lys Thr Pro Ile
165     170     175
Lys Pro Trp Leu Met Asp Asn Lys Leu Val Val Gly Val Gly Asn Ile
180     185     190
Tyr Ala Ser Glu Ser Leu Phe Ala Ala Gly Ile His Pro Asp Arg Leu
195     200     205
Ala Ser Ser Leu Ser Ala Gln Glu Cys Glu Leu Leu Val Arg Val Ile
210     215     220
Lys Ala Val Leu Leu Arg Ser Ile Glu Gln Gly Gly Thr Thr Leu Lys
225     230     235     240
Asp Phe Leu Gln Ser Asp Gly Lys Pro Gly Tyr Phe Ala Gln Glu Leu
245     250     255
Gln Val Tyr Gly Arg Lys Gly Glu Pro Cys Arg Ala Cys Gly Thr Pro
260     265     270
Ile Ile Ala Thr Lys His Ala Gln Arg Ala Thr Phe Tyr Cys Arg Gln
275     280     285
Cys Gln Lys
290

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<210> 7766

<211> 465

<212> PRT

<213> Enterobacter cloacae

<400> 7766

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Ser Met Ser Arg Gly Ile Ser Arg Thr Leu Ile Ser Leu Ser Tyr His
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His Asn Ala Gln Ala Ser Ala Ile His Arg Tyr Ala Ala Gly Val Arg
20      25      30
Val Ile Tyr Ala Ala Lys Thr Arg Arg Asp Thr Ala Ser Ser Arg His
35      40      45
Glu Leu Leu Val Trp Val Ile Cys Ala Lys Ile Cys Arg Val Trp Arg
50      55      60
Ile Ala Met Arg Gly Asp Phe Tyr Lys Gln Leu Asn Ser Asp Leu Glu

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ala | Arg | Ala | Glu | Gly | Leu | Phe | Lys | Glu | Glu | Arg | Ile | Ile | Thr | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Gln | Gln | Ala | Asp | Ile | Thr | Val | Ala | Asp | Gly | Ser | His | Val | Ile | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Cys | Ala | Asn | Asn | Tyr | Leu | Gly | Leu | Ala | Asn | His | Pro | Glu | Leu | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Ala | Ala | Lys | Asn | Gly | Met | Asp | Thr | His | Gly | Phe | Gly | Met | Ala | Ser |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Val | Arg | Phe | Ile | Cys | Gly | Thr | Gln | Asp | Ser | His | Lys | Gln | Leu | Glu | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Leu | Ala | Asn | Phe | Leu | Gly | Met | Glu | Asp | Ala | Ile | Leu | Tyr | Ser | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Cys | Phe | Asp | Ala | Asn | Gly | Gly | Leu | Phe | Glu | Thr | Leu | Leu | Gly | Ala | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Ala | Ile | Ile | Ser | Asp | Ala | Leu | Asn | His | Ala | Ser | Ile | Ile | Asp | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Arg | Leu | Cys | Lys | Ala | Lys | Arg | Phe | Arg | Tyr | Ala | Asn | Asn | Asp | Met |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Val | Glu | Leu | Glu | Ala | Arg | Leu | Lys | Glu | Ala | Arg | Glu | Ala | Gly | Ala | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Val | Leu | Ile | Ala | Thr | Asp | Gly | Val | Phe | Ser | Met | Asp | Gly | Val | Ile |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ala | Asn | Leu | Lys | Gly | Val | Cys | Asp | Leu | Ala | Asp | Lys | Tyr | Asp | Ala | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Met | Val | Asp | Asp | Ser | His | Ala | Val | Gly | Phe | Val | Gly | Glu | Asn | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Arg | Gly | Ser | His | Glu | Tyr | Cys | Asp | Val | Met | Gly | Arg | Val | Asp | Ile | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Gly | Thr | Leu | Gly | Lys | Ala | Leu | Gly | Gly | Ala | Ser | Gly | Gly | Tyr | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Ala | Arg | Lys | Glu | Val | Val | Glu | Trp | Leu | Arg | Gln | Arg | Ser | Arg | Pro |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Tyr | Leu | Phe | Ser | Asn | Ser | Leu | Ala | Pro | Ala | Ile | Val | Ala | Ala | Ser | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Val | Leu | Glu | Met | Val | Glu | Ser | Gly | Ala | Glu | Leu | Arg | Glu | Arg | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Trp | Ala | Asn | Ala | Arg | Leu | Phe | Arg | Glu | Lys | Met | Ser | Ala | Ala | Gly | Phe |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Thr | Leu | Ala | Gly | Ala | Asp | His | Ala | Ile | Ile | Pro | Val | Met | Leu | Gly | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Val | Val | Ala | Gln | Gln | Phe | Ala | Arg | Glu | Leu | Gln | Lys | Glu | Gly | Ile |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Tyr | Val | Thr | Gly | Phe | Phe | Phe | Pro | Val | Val | Pro | Lys | Gly | Gln | Ala | Arg |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Arg | Thr | Gln | Met | Ser | Ala | Ala | His | Ser | Pro | Glu | Gln | Ile | Glu | Arg |
| | | 435 | | | | 440 | | | | | | 445 | | | |
| Ala | Val | Glu | Ala | Phe | Thr | Arg | Ile | Gly | Lys | Gln | Leu | Gly | Val | Ile | Ala |
| | | 450 | | | | 455 | | | | | 460 | | | | |

465

<210> 7767

<211> 346

<212> PRT

<213> Enterobacter cloacae

<400> 7767

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| Gly | Arg | Val | Met | Lys | Ala | Leu | Ser | Lys | Leu | Lys | Ala | Glu | Glu | Gly | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Met | Thr | Asp | Val | Pro | Glu | Pro | Glu | Val | Gly | His | Asn | Asp | Leu | Leu |


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<210> 7768
<211> 379
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Arg | Arg | Arg | Leu | Arg | Gln | Ala | Val | Gln | Asp | Arg | Cys | Arg | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Asn | Gly | Ile | Tyr | Gly | Leu | Ala | Glu | Pro | Arg | Arg | Ile | Ser | Met | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Leu | Val | Ile | Gly | Pro | Ser | Trp | Val | Gly | Asp | Met | Met | Met | Ser | Gln |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ser | Leu | Tyr | Arg | Thr | Leu | Lys | Ala | Arg | Tyr | Pro | Gln | Ala | Ile | Ile | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Met | Ala | Pro | Ala | Trp | Cys | Arg | Pro | Leu | Leu | Ser | Arg | Met | Pro | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Val | Asn | Glu | Ala | Ile | Pro | Met | Pro | Leu | Gly | His | Gly | Ala | Leu | Glu | Ile |
| | | | | 85 | | | | | 90 | | | | 95 | | |
| Gly | Glu | Arg | Arg | Lys | Leu | Gly | His | Ser | Leu | Arg | Glu | Lys | Arg | Tyr | Asp |


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<210> 7769
<211> 329
<212> PRT
<213> Enterobacter cloacae
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Met | Arg | Val | Leu | Ile | Val | Lys | Thr | Ser | Ser | Met | Gly | Asp | Val | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Thr | Leu | Pro | Ser | Leu | Thr | Asp | Ala | Met | Arg | Ala | Ile | Pro | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Phe | Asp | Trp | Val | Val | Glu | Glu | Gly | Phe | Ala | Gln | Ile | Pro | Thr | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Glu | Ala | Val | Asp | Arg | Val | Ile | Pro | Val | Ala | Ile | Arg | Arg | Trp | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Ala | Trp | Phe | Ser | Ala | Pro | Ile | Lys | Ala | Glu | Arg | Lys | Ala | Phe | Arg |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Glu | Ala | Val | Gln | Ala | Arg | Arg | Tyr | Asp | Ala | Ile | Val | Asp | Ala | Gln | Gly |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Val | Lys | Ser | Ala | Ala | Leu | Val | Thr | Arg | Leu | Ala | His | Gly | Val | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Gly | Met | Asp | Trp | Gln | Thr | Ala | Arg | Glu | Pro | Leu | Ala | Ser | Leu | Phe |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Asn | Arg | Arg | His | His | Ile | Ala | Lys | Gln | Gln | His | Ala | Val | Glu | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Arg | Glu | Leu | Phe | Ala | Lys | Ser | Leu | Gly | Tyr | Ala | Lys | Pro | Glu | Ala |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | | 155 | | | | 160 |
| Gln | Gly | Asp | Tyr | Ala | Ile | Ala | Gln | His | Phe | Leu | Arg | Glu | Thr | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 |
| His | Ala | Glu | Pro | Tyr | Leu | Val | Phe | Leu | His | Ala | Thr | Thr | Arg | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | Asp |
| Lys | His | Trp | Pro | Glu | Thr | His | Trp | Arg | Arg | Leu | Ile | Glu | Leu | Met |
| | | 195 | | | | | 200 | | | | | 205 | | Gln |
| Pro | Cys | Gly | Ile | His | Ile | Lys | Leu | Pro | Trp | Gly | Ala | Glu | His | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | Arg |
| Gln | Arg | Ala | Glu | Arg | Leu | Ala | Ala | Gly | Phe | Ser | His | Val | Glu | Val |
| 225 | | | | | 230 | | | | | 235 | | | | Leu |
| Pro | Lys | Leu | Thr | Leu | Ala | Gln | Val | Ala | Ala | Gln | Leu | Ala | Gly | Ala |
| | | | | 245 | | | | | 250 | | | | | Asn |
| Ala | Val | Val | Ser | Val | Asp | Thr | Gly | Leu | Ser | His | Leu | Thr | Ala | Ala |
| | | | 260 | | | | 265 | | | | | | 270 | Leu |
| Asp | Arg | Pro | Asn | Ile | Thr | Ile | Phe | Gly | Pro | Thr | Asp | Pro | Gly | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | Ile |
| Gly | Gly | Tyr | Gly | Lys | Asn | Gln | His | Gln | Met | Val | Ser | Pro | Thr | Gln |
| | 290 | | | | 295 | | | | | 300 | | | | Gln |
| Thr | Lys | Asp | Ile | Ser | Ala | Asp | Ala | Ile | Phe | Ser | Phe | Leu | Gln | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | Ser |
| His | Arg | Leu | Ser | Asn | Arg | Asp | Ile | | | | | | | |
| | | | | 325 | | | | | | | | | | |

<210> 7770

<211> 371

<212> PRT

<213> Enterobacter cloacae

<400> 7770

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| Pro | Met | Ser | Tyr | Val | Phe | Leu | Leu | Ile | Leu | Leu | Phe | Pro | Val | Lys | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Arg | Lys | Leu | Phe | Arg | Lys | Asp | Thr | Gly | Lys | Asn | Leu | Val | Ile | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ala | Lys | Ile | Gly | Asp | Phe | Ile | Asn | Ala | Thr | Pro | Leu | Leu | Ala | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gln | Lys | Ser | Asp | Val | Leu | Ile | Ser | Arg | Ser | Val | Gly | Ala | Leu | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Lys | His | Asp | Glu | Thr | Ile | Glu | Gln | Ile | Tyr | Phe | Ile | Glu | Gln | His | Lys |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Arg | Asn | Leu | Trp | Arg | Lys | Leu | Cys | Phe | Ala | Cys | Arg | Ile | Met | Asn | Arg |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Tyr | Asp | Asn | Val | Tyr | Leu | Leu | Gln | Pro | Asn | Ser | Val | Asn | Leu | Phe | Phe |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Val | Cys | Asn | Ala | Lys | Asn | Lys | Gln | Phe | Leu | Ser | Ile | Tyr | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Arg | Trp | Tyr | His | Gly | Ile | Phe | Tyr | Leu | Ala | Ala | Asp | Gly | Thr | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | His | Gly | Lys | Lys | Thr | Leu | Ser | Val | Ala | Asn | Tyr | Leu | Lys | Leu | Ala |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Asp | Arg | Ser | Leu | Thr | Trp | Gln | Asp | Ser | Pro | Lys | His | Ala | Thr | Lys | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Phe | Lys | Pro | Thr | Thr | Trp | Pro | Ala | Ile | Leu | Asp | Lys | Pro | Asp | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Arg | Ile | Gly | Ile | Ser | Ile | Ala | Ala | Gly | Asn | Lys | Ala | Lys | Thr | Val |
| | 195 | | | | | 200 | | | | | 205 | | | | |
| Pro | Pro | Val | Ile | Trp | Lys | Arg | Ile | Val | Asp | Gln | Leu | Ala | Asp | Leu | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Cys | Glu | Phe | Tyr | Val | Phe | Gly | Ala | Pro | Asn | Glu | Gln | Ser | Trp | Met | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Asp | Ile | Thr | Arg | Leu | Tyr | Gly | Glu | Ile | Pro | Asn | Phe | Ile | Asn | Leu | Ile |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Gly | Lys | Ile | Ser | Leu | Glu | Glu | Leu | Pro | Trp | Ala | Ile | Ser | Lys | Met | Asp | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Cys | Tyr | Ile | Ala | Ser | Asp | Ser | Gly | Asn | Val | Tyr | Ile | Ala | Asp | Ala | Val | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Gly | Val | Pro | Val | Val | Leu | Leu | Phe | Gly | Pro | Cys | Cys | His | Tyr | Glu | Gln | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Arg | Pro | Leu | Gly | Asn | Val | Met | Leu | Ile | Gly | Asn | Asp | Asp | Asn | Ile | Cys | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Ser | Tyr | Val | Phe | Glu | Thr | Arg | Tyr | Tyr | Phe | Pro | Gln | Glu | Arg | Glu | Ala | | |
| | | | 325 | | | | | | 330 | | | | | 335 | | | |
| Leu | Phe | Ser | Val | Thr | Asp | Ser | Ala | Leu | His | Asp | Leu | Gln | Gln | Phe | Val | | |
| | | 340 | | | | | | 345 | | | | | 350 | | | | |
| Arg | Thr | Leu | Pro | Lys | Ala | Arg | Ser | Leu | Ala | Ser | Ala | Thr | Asp | Ala | Gln | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Gly | Asn | | | | | | | | | | | | | | | | |
| | 370 | | | | | | | | | | | | | | | | |

<210> 7771

<211> 362

<212> PRT

<213> Enterobacter cloacae

<400> 7771

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| Tyr | Asn | Ala | Asp | Lys | Met | Met | Met | Asn | Asn | Leu | Pro | Asp | Thr | Pro | Asp | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Leu | Arg | Ile | Leu | Leu | Ile | Lys | Leu | Arg | His | His | Gly | Asp | Met | Leu | Leu | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Thr | Thr | Pro | Val | Ile | Asn | Ser | Leu | Arg | Gln | Lys | Trp | Pro | Glu | Ala | Gln | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Ile | Asp | Val | Leu | Leu | Tyr | Glu | Glu | Thr | Arg | Asp | Met | Leu | Ala | Ala | His | | |
| | 50 | | | | 55 | | | | | | 60 | | | | | | |
| Pro | Ala | Ile | Gly | Thr | Ile | Tyr | Gly | Ile | Asp | Arg | Lys | Trp | Lys | Gln | Leu | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Gly | Thr | Leu | Lys | His | Leu | Gln | Lys | Glu | Trp | Gln | Leu | Leu | Arg | Ala | Leu | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Arg | Ala | Gln | His | Tyr | His | Leu | Val | Ile | Asn | Leu | Ala | Asp | Gln | Trp | Arg | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Ser | Ala | Ile | Val | Thr | Arg | Phe | Thr | Gly | Ala | Pro | Val | Arg | Leu | Gly | Phe | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ala | Phe | Asn | Lys | Arg | Lys | Asn | Ala | Phe | Trp | Arg | Phe | Cys | His | Ser | Glu | | |
| | 130 | | | | 135 | | | | | | 140 | | | | | | |
| Leu | Val | Ser | Val | Ala | Ser | His | Gln | Ser | Leu | His | Thr | Val | Glu | Gln | Asn | | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 | | |
| Leu | Ser | Ile | Leu | Ser | Ala | Leu | Pro | Val | Met | Ala | Asn | Pro | Thr | Val | Thr | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Met | Ala | Tyr | Ser | Ala | Asp | Asp | Trp | Arg | His | Ala | His | Gln | Lys | Leu | Thr | | |
| | | 180 | | | | | | 185 | | | | | 190 | | | | |
| Gln | Lys | Gly | Val | Gly | Asp | Arg | Tyr | Ile | Val | Ile | Gln | Pro | Thr | Ser | Arg | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Trp | Phe | Phe | Lys | Cys | Trp | Asp | Glu | Gly | Lys | Met | Ala | Gln | Thr | Ile | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Ala | Leu | Gln | Gln | Asp | Gly | His | Thr | Ile | Val | Leu | Thr | Ala | Gly | Pro | Asp | | |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 | | |
| Lys | Lys | Glu | Leu | Ala | Met | Ile | Asp | Arg | Ile | Leu | Ala | Ala | Ser | Pro | Gln | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Thr | Gly | Val | Val | Ser | Leu | Ala | Gly | Gln | Leu | Thr | Leu | Arg | Gln | Leu | Ala | | |
| | | 260 | | | | | 265 | | | | | | 270 | | | | |
| Ser | Leu | Ile | Asp | His | Ala | Ile | Leu | Phe | Ile | Gly | Val | Asp | Ser | Val | Pro | | |
| | 275 | | | | | | 280 | | | | | 285 | | | | | |
| Met | His | Met | Ala | Ala | Ala | Leu | Gln | Thr | Pro | Cys | Val | Ala | Leu | Phe | Gly | | |

| | | | | |
|---|-----|-----|-----|-----|
| 290 | | 295 | | 300 |
| Pro Ser Lys Leu Thr Phe Trp Ser Pro Trp Gln Val Asn Gly Glu Val | | | | |
| 305 | | 310 | | 315 |
| Ile Trp Ala Gly Asn Tyr Gly Pro Leu Pro Asn Pro Asp Ala Ile Asp | | | | |
| | 325 | | 330 | 335 |
| Thr Lys Thr Thr Glu Arg Tyr Leu Asp Ala Ile Pro Val Asp Ala Val | | | | |
| | 340 | | 345 | 350 |
| Val Ser Ala Ala Arg Arg Tyr Leu Gln | | | | |
| | 355 | | 360 | |

<210> 7772

<211> 349

<212> PRT

<213> Enterobacter cloacae

<400> 7772

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|---|-----|-----|-----|--|
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| 1 | 5 | 10 | 15 | |
| Arg Phe His Met Gln Asn Ser Ala Pro Leu Leu Ser Val Val Val Ala | | | | |
| | 20 | 25 | 30 | |
| Val Tyr Asn Gly Glu Ala Phe Leu Asp Gln Phe Phe Thr Cys Leu Val | | | | |
| | 35 | 40 | 45 | |
| Asn Gln His Ile Asp Ser Met Glu Val Ile Ile Val Asn Asp Gly Ser | | | | |
| | 50 | 55 | 60 | |
| Thr Asp Arg Ser Met Gln Ile Val Glu Lys Trp Arg Glu Lys Leu Pro | | | | |
| 65 | 70 | 75 | 80 | |
| Gln Met Gln Val Ile Glu Gln Pro Asn Gln Gly Val Ser Ile Ala Arg | | | | |
| | 85 | 90 | 95 | |
| Asn Thr Gly Leu Ala Val Ala Thr Gly Gln Tyr Leu Ser Phe Pro Asp | | | | |
| | 100 | 105 | 110 | |
| Ile Asp Asp Val Phe Lys Pro Gly Met Tyr Gln Arg Leu Leu Asp Met | | | | |
| | 115 | 120 | 125 | |
| Ala Val Thr Gln Asn Leu Asp Val Ala Thr Cys Asn Gly Asn Tyr Val | | | | |
| | 130 | 135 | 140 | |
| Trp Glu Asn Asn Lys Lys Pro Ser Arg Pro Ile Phe Pro Glu Val Lys | | | | |
| 145 | 150 | 155 | 160 | |
| Leu Ala Ser Thr Gly Val Met Asn Gly Ala Val Trp Leu Lys Lys Ala | | | | |
| | 165 | 170 | 175 | |
| Leu Asp Ser Arg Lys Phe Leu His Val Thr Trp Leu Asn Ile Tyr Arg | | | | |
| | 180 | 185 | 190 | |
| His Asp Phe Ile Arg Gln His Gly Phe Arg Phe Glu Pro Gly Leu Arg | | | | |
| | 195 | 200 | 205 | |
| His Gln Asp Ile Pro Trp Thr Thr Glu Val Leu Leu Ala Ala Glu Arg | | | | |
| | 210 | 215 | 220 | |
| Val Gln Tyr Thr Ser Glu Arg Phe Tyr Asp Tyr Tyr Ile His Ser Ala | | | | |
| 225 | 230 | 235 | 240 | |
| Ser Val Ser His Thr Pro Asp Asn Asp Thr Leu Ile Arg Ser Ala | | | | |
| | 245 | 250 | 255 | |
| Arg His Tyr Met Lys Ile Leu Lys Met Leu Asp Ala Ile Asn Gln Arg | | | | |
| | 260 | 265 | 270 | |
| Tyr Pro Asp Lys Val Lys Asn Ile Pro Ala Cys His Trp Gln Ile Ala | | | | |
| | 275 | 280 | 285 | |
| Lys Glu Gly Leu Gly Ile Ile His Thr Phe Asp Asn Met Lys Asp Glu | | | | |
| | 290 | 295 | 300 | |
| Ala Lys Lys Ala Met Ile Ile Lys Glu Phe Phe Asp Thr Gly Ile Trp | | | | |
| 305 | 310 | 315 | 320 | |
| Lys Leu Ile Trp Lys Ser Ala Lys Ser Pro Arg Leu Arg Trp Arg Leu | | | | |
| | 325 | 330 | 335 | |
| Gly Arg Arg Tyr Phe Arg Leu Lys Arg Tyr Leu Ala | | | | |
| | 340 | 345 | | |

<400> 7773

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Phe | Pro | Ala | Glu | Thr | Lys | Lys | Thr | Asp | Asn | Arg | Leu | Glu | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Tyr | Thr | Ala | Leu | Leu | Tyr | Ile | Ile | Gln | Pro | Leu | Val | Trp | Leu | Arg | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Leu | Arg | Ser | Arg | Lys | Ala | Pro | Ala | Tyr | Arg | Lys | Arg | Trp | Ala | Glu |
| | | | 35 | | | | | 40 | | | | 45 | | | |
| Arg | Tyr | Gly | Tyr | Cys | Arg | Asn | Lys | Val | Ala | Pro | Asp | Gly | Ile | Leu | Leu |
| | | | | | | 55 | | | | | 60 | | | | |
| His | Ser | Val | Ser | Val | Gly | Glu | Thr | Leu | Ala | Ala | Ile | Pro | Leu | Val | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Leu | Arg | His | Arg | Tyr | Pro | Ser | Leu | Pro | Ile | Thr | Val | Thr | Thr | Met |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Pro | Thr | Gly | Ser | Glu | Arg | Val | Met | Ser | Ala | Phe | Gly | Lys | Asp | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | His | Val | Tyr | Leu | Pro | Tyr | Asp | Leu | Pro | Cys | Ala | Met | Asn | Arg | Phe |
| | | | | | | | 120 | | | | | 125 | | | |
| Leu | Asn | Thr | Val | Arg | Pro | Lys | Leu | Val | Ile | Val | Met | Glu | Thr | Glu | Leu |
| | | | | | | 135 | | | | | 140 | | | | |
| Trp | Pro | Asn | Met | Ile | Ser | Ala | Leu | His | Ala | Arg | Lys | Ile | Pro | Leu | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Ala | Asn | Ala | Arg | Leu | Ser | Glu | Arg | Ser | Ala | Lys | Gly | Tyr | Gly | Lys |
| | | | | 165 | | | | | | 170 | | | | 175 | |
| Leu | Gly | Lys | Phe | Met | Arg | Arg | Leu | Leu | Ser | Lys | Ile | Thr | Leu | Ile | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Gln | Asn | Glu | Glu | Asp | Ala | Ala | Arg | Phe | Ile | Ala | Leu | Gly | Leu | Lys |
| | | | | | | 200 | | | | | 205 | | | | |
| Arg | Asn | Gln | Leu | Ala | Val | Thr | Gly | Ser | Leu | Lys | Phe | Asp | Ile | Ser | Val |
| | | | | | | 215 | | | | | 220 | | | | |
| Thr | Pro | Glu | Leu | Ala | Ala | Arg | Ala | Val | Thr | Leu | Arg | Arg | Gln | Trp | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Arg | Arg | Gln | Val | Trp | Ile | Ala | Thr | Ser | Thr | His | Asp | Gly | Glu | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Ile | Ile | Leu | Gln | Ala | His | Arg | Gln | Leu | Leu | Glu | Lys | Phe | Pro | Asp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Leu | Leu | Ile | Leu | Val | Pro | Arg | His | Pro | Glu | Arg | Phe | Lys | Asp | Ala |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Arg | Glu | Met | Val | Gln | Lys | Gly | Gly | Phe | Ser | Phe | Thr | Leu | Arg | Ser | Ser |
| | | | | | | 295 | | | | | 300 | | | | |
| Gly | Glu | Ile | Pro | Ser | Gly | Ser | Thr | Gln | Val | Val | Ile | Gly | Asp | Thr | Met |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Glu | Leu | Met | Leu | Leu | Tyr | Gly | Ile | Ala | Asp | Leu | Ala | Phe | Val | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Ser | Leu | Val | Glu | Arg | Gly | Gly | His | Asn | Pro | Leu | Glu | Pro | Ala | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| His | Ala | Ile | Pro | Val | Leu | Met | Gly | | | | | | | | |

435

<210> 7774

<211> 407

<212> PRT

<213> Enterobacter cloacae

<400> 7774

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20      25      30
Lys Arg Ile Asn Arg Glu Lys Phe Asp Ile Thr Cys Cys Phe Tyr Ser
35      40      45
Asp Tyr Ser Arg Ala Glu Gly Glu Thr Ile Gly Gln Val Leu Asn Ser
50      55      60
Ile Gly Ile Pro Leu Leu Val Ile Pro Gln Arg Lys Gln Pro Ala Trp
65      70      75      80
Ala Lys Leu Leu Lys Glu Ala Gly Arg Gly Leu Leu Phe Phe Ser Arg
85      90      95
Ser Ala Arg Lys Ala Phe Thr Arg His Ile Asp Thr Leu Trp Arg Ile
100     105     110
Arg Pro Asn Val Ser Lys Ile Glu Thr Ile Phe Arg Glu Gly Gly Phe
115     120     125
Asp Thr Leu Tyr Met Asn Asn Gln Pro Gly Ser Asn Glu Glu Gly Tyr
130     135     140
Leu Ala Gly Ala Asn Leu His Ala Arg Ile Ile Gln His Cys Arg Ile
145     150     155     160
Glu Pro Val Leu Thr Pro Pro Leu Val Lys Leu Val Asn Thr His Ala
165     170     175
Thr Lys Ile Ile Ala Val Ser His Gly Val Glu Arg Val Leu Leu Gln
180     185     190
His Gly Val Arg Pro Ala Leu Cys Thr Thr Val Asn Asn Ala Ile Asp
195     200     205
Ile His Gln Pro Leu Pro Asp Arg Arg Ala Met Arg Gln Arg Leu Asn
210     215     220
Ile Asp Asp Asp Thr Phe Val Phe Gly Ser Val Gly Ser Leu Ile Pro
225     230     235     240
Arg Lys Ala Asn His Thr Leu Glu Ala Leu Ala Gln Phe Asn Gln
245     250     255
Arg His Pro Gln Ala Lys Trp Lys Met Val Leu Val Gly Glu Gly Ala
260     265     270
Glu Arg Gly Ala Leu Thr Ala Gln Ala Asp Ala Leu Gly Ile Ala Glu
275     280     285
His Val Ile Phe Thr Gly Phe Gln Asn Thr Pro Phe Asp Tyr Leu Ala
290     295     300
Thr Phe Asp Ala Phe Ile Leu Ala Ser Lys Ser Glu Gly Leu Pro Arg
305     310     315     320
Val Val Leu Glu Ala Met Leu Leu Asn Ile Pro Val Ile Gly Ser Lys
325     330     335
Val Thr Gly Thr Ala Glu Leu Ile Asp His Glu Ser Thr Gly Leu Leu
340     345     350
Phe Pro Trp Ser Asp Val Ser Gln Leu Ala Gln His Leu Asp Asn Ile
355     360     365
Trp Gln Asp Pro Ala Leu Arg Ala Arg Leu Ala Ala Ala His Gln
370     375     380
Asn Val Cys Asn Met Tyr Ala Ile Glu Ser Tyr Val Asn Gly Val Glu
385     390     395     400
Ala Val Leu Gly Ala Gln
405

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<210> 7775
 <211> 325
 <212> PRT
 <213> Enterobacter cloacae

<400> 7775

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| Arg | Ser | Gly | Tyr | Ser | Pro | Thr | His | Thr | Ser | Lys | Val | Thr | Val | Met | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Val | Thr | Gly | Gly | Ala | Gly | Phe | Ile | Gly | Ser | Asn | Ile | Val | Lys | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Asn | Asp | Lys | Gly | Ile | Thr | Asp | Ile | Leu | Val | Val | Asp | Asn | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Gly | Thr | Lys | Phe | Val | Asn | Leu | Val | Asp | Leu | Asn | Ile | Ala | Asp | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Met | Asp | Lys | Glu | Asp | Phe | Leu | Ile | Gln | Ile | Met | Ala | Gly | Glu | Glu | Phe |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Gly | Glu | Ile | Glu | Ala | Ile | Phe | His | Glu | Gly | Ala | Cys | Ser | Ser | Thr | Thr |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Glu | Trp | Asp | Gly | Lys | Tyr | Met | Met | Asp | Asn | Asn | Tyr | Gln | Tyr | Ser | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Leu | Leu | His | Tyr | Cys | Leu | Glu | Arg | Glu | Ile | Pro | Phe | Leu | Tyr | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ser | Ala | Ala | Thr | Tyr | Gly | Gly | Arg | Thr | Ser | Asp | Phe | Ile | Glu | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Glu | Tyr | Glu | Gln | Pro | Leu | Asn | Val | Tyr | Gly | Tyr | Ser | Lys | Phe | Leu |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Phe | Asp | Glu | Tyr | Val | Arg | Gln | Ile | Leu | Pro | Glu | Ala | Asn | Ser | Gln | Ile |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Val | Gly | Phe | Arg | Tyr | Phe | Asn | Val | Tyr | Gly | Pro | Arg | Glu | Gly | His | Lys |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Gly | Ser | Met | Ala | Ser | Val | Ala | Phe | His | Leu | Asn | Thr | Gln | Leu | Asn | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Glu | Ser | Pro | Lys | Leu | Phe | Glu | Gly | Ser | Asp | Gly | Phe | Lys | Arg | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Phe | Val | Tyr | Val | Gly | Asp | Val | Ala | Ala | Val | Asn | Leu | Trp | Phe | Leu | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Asn | Gly | Val | Ser | Gly | Ile | Phe | Asn | Leu | Gly | Thr | Gly | Arg | Ala | Glu | Ser |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Phe | Gln | Ala | Val | Ala | Asp | Ala | Thr | Leu | Ala | Tyr | His | Lys | Lys | Gly | Ser |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ile | Glu | Tyr | Ile | Pro | Phe | Pro | Asp | Lys | Leu | Lys | Gly | Arg | Tyr | Gln | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Thr | Gln | Ala | Asp | Leu | Thr | Asn | Leu | Arg | Ala | Ala | Gly | Tyr | Asp | Lys |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Pro | Phe | Lys | Thr | Val | Ala | Glu | Gly | Val | Thr | Glu | Tyr | Met | Ala | Trp | Leu |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Asn | Arg | Asp | Ala | | | | | | | | | | | | |

325

<210> 7776
 <211> 406
 <212> PRT
 <213> Enterobacter cloacae

<400> 7776

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ile | Met | Glu | Lys | Ile | Lys | Pro | Arg | Leu | Tyr | Gln | Leu | Thr | Ile | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | Leu | Ile | Ser | Leu | Ile | Leu | Ala | Leu | Val | Ser | Ser | Gly | Lys | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Glu | Phe | Phe | Tyr | Ile | Ala | Ile | Tyr | Val | Ser | Ile | Ile | Gly | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |

Phe Glu Tyr Lys Lys Ile Thr Leu Arg Pro Phe Thr Ile Ala Leu Pro
 50 55 60
 Ile Leu Leu Ile Gly Leu Leu Asn Leu Gly Trp Tyr Leu Leu Tyr Glu
 65 70 75 80
 Tyr His Asn Glu Gly Leu Asn Leu Tyr Ser Asp Tyr Leu Gly Ala Ser
 85 90 95
 Lys Lys Leu Ile Leu Ala Ser Val Leu Ile Phe Tyr Ile Asp Arg Phe
 100 105 110
 Lys Phe Tyr Ile Asp Lys Asp Thr Phe Arg Lys Phe Phe Phe Phe Ala
 115 120 125
 Thr Ala Leu Gly Phe Val Leu Ala Thr Gly Tyr Gly Leu Trp Gln Ala
 130 135 140
 Ser Gln Gly Met Thr Arg Val Glu Met Ala Ile Asn Arg Ala Thr Val
 145 150 155 160
 Ser Ala Tyr Val Tyr Ser Val Leu Ser Leu Ala Phe Val Tyr Ser Leu
 165 170 175
 Tyr Leu Gln Gln Asn Val Lys Leu Tyr Val Val Ala Gly Phe Thr Ile
 180 185 190
 Leu Ile Ser Tyr Phe Val Ile Leu Leu Thr Gly Thr Arg Ala Ala Met
 195 200 205
 Gly Leu Tyr Leu Leu Leu Ala Ile Val Leu Thr Leu Tyr His Phe Arg
 210 215 220
 Lys Ile His Leu Lys Ser Ala Leu Ile Phe Leu Cys Ile Val Ala Gly
 225 230 235 240
 Val Val Ile Val Ser Tyr Lys Pro Leu Ile Ser Ser Lys Ile Lys Gln
 245 250 255
 Thr Gln Arg Glu Val Glu Arg Tyr Gln Gln Gly Phe Asp Arg Thr Ser
 260 265 270
 Leu Gly Ala Arg Phe Ser Met Trp Thr Val Gly Ile Glu Asn Gly Leu
 275 280 285
 Ala His Pro Leu Gly Gln Ser Leu Glu Gln Arg Glu Ala Trp Thr Arg
 290 295 300
 Gln Tyr Ile Lys Asp Gly His Pro His Leu Gly Ser Ala Leu Glu Tyr
 305 310 315 320
 Ile Lys Val His Leu His Asn Glu Phe Ile Glu Lys Tyr Ser Leu Gln
 325 330 335
 Gly Ile Pro Gly Val Thr Val Met Leu Phe Phe Phe Val Ser Met Ile
 340 345 350
 Ala Tyr Ala Leu Arg Asn Arg Asn Ala Leu Leu Leu Thr Ser Met Leu
 355 360 365
 Leu Leu Leu Leu Tyr Gly Leu Thr Asp Val Ile Leu Leu Ser Ser Glu
 370 375 380
 Ala Leu Ile Phe Phe Met Ile Leu Phe Ala Leu Ser Thr Pro Phe Ser
 385 390 395 400
 Gln Thr Lys Gln Gln
 405

<210> 7777

<211> 384

<212> PRT

<213> Enterobacter cloacae

<400> 7777

Lys Thr Ile Lys Ser Ala Tyr Phe Ala Leu Ser Lys Ile Thr Gly Leu
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 Ile Met Arg Ile Leu Met Ile Ile Asp Gly Leu Pro Gly Gly Ala
 20 25 30
 Glu Lys Thr Val Leu Thr Leu Ser Ser Gly Leu Thr Glu Leu Gly His
 35 40 45
 Gln Val Thr Leu Phe Ser Leu Arg Lys Val Cys Asp Tyr Ala Ile Pro
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Gly | Ile | Asp | Phe | Gln | Ile | Val | Gln | Asp | Thr | Cys | Lys | Lys | Pro | Trp |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Arg | Lys | Leu | Thr | Glu | Ile | Pro | Arg | Arg | Ala | Arg | Leu | Leu | Asp | Arg | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Glu | Asn | Ala | Glu | Arg | Ser | Gly | Lys | Phe | Asp | Val | Val | Phe | Ser | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | His | Lys | Thr | Asp | Arg | Ile | Val | Ala | His | Ser | Arg | Val | Leu | Asp | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asp | Lys | Val | Trp | Phe | Cys | Val | His | Gly | Met | Phe | Ser | Phe | Ser | Tyr | Leu |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Arg | His | Arg | Ser | Gly | Leu | Ser | Arg | Trp | Phe | Lys | His | Tyr | Lys | Ile | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Thr | Tyr | Glu | Asn | Arg | Asn | Val | Val | Ala | Val | Ser | Gly | Ala | Val | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| His | Asp | Leu | Ser | Gln | Val | Leu | Ala | Ile | Pro | Leu | Arg | Arg | Lys | Ala | Val |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ile | His | Asn | Pro | Phe | Asp | Ile | Pro | Glu | Ile | Gln | Arg | Leu | Ala | Glu | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Phe | Glu | Met | Gln | Gly | Gln | Asp | Tyr | Ile | Ile | His | Val | Gly | Arg | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| His | Glu | His | Lys | Arg | His | Asp | Arg | Leu | Leu | Arg | Ala | Phe | Ala | Leu | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Ile | Asp | Ala | Ser | Leu | Val | Leu | Met | Gly | Lys | Gly | Ser | Asp | Ala | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Asn | Gln | Leu | Lys | Gln | Leu | Ala | Ala | Lys | Leu | Gly | Ile | Glu | Asn | Lys |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ile | Val | Phe | Arg | Pro | Phe | Glu | Thr | Asn | Pro | Tyr | Pro | Trp | Ile | Lys | Gly |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Arg | Leu | Leu | Val | Leu | Ser | Ser | Asp | Cys | Glu | Gly | Phe | Gly | Asn | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Val | Glu | Ser | Ile | Ile | Cys | Gln | Thr | Pro | Pro | Val | Ser | Thr | Asn | Cys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Pro | Gly | Gly | Pro | Ala | Glu | Ile | Leu | Thr | Gly | Pro | Leu | Ala | Arg | Gly | Leu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Thr | Ala | Leu | Thr | Asp | Glu | Ser | Leu | Ala | Lys | Thr | Leu | Ala | Glu | Leu | Tyr |
| | | | 340 | | | | 345 | | | | | | 350 | | |
| Ala | Ser | Pro | Pro | Val | Val | Asp | Arg | Glu | Thr | Ile | Ala | Ser | Phe | Gly | Ile |
| | | 355 | | | | 360 | | | | | | 365 | | | |
| Asn | Ala | Ile | Cys | Gln | Gln | Tyr | Ile | Ala | Leu | Val | Asp | Asn | Gln | Lys | |
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<210> 7778

<211> 192

<212> PRT

<213> Enterobacter cloacae

<400> 7778

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| Met | Pro | Leu | Met | Asn | Ser | Pro | Leu | Lys | Met | Thr | Leu | Phe | Gln | Ser | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Ile | Ser | Asp | Gly | Gly | Ile | Pro | Ser | Ile | Ala | Ile | Arg | Pro | Pro | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Met | Val | Ser | Ser | Met | Val | Arg | Asn | Ala | Gly | Gly | Ala | Pro | Asp | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Pro | Thr | Ser | Lys | Pro | Ser | Val | Met | Pro | Ser | Ser | Ser | Ile | Thr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ser | Val | Arg | Leu | Ser | Phe | Glu | Thr | Ser | Thr | Ala | Arg | Val | Thr | Pro | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Arg | Ala | Ser | Asp | Arg | Arg | Tyr | Ser | Phe | Thr | Ser | Val | Ile | Thr | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Arg | Ala | Pro | Thr | Cys | Phe | Ala | Thr | Ala | Ala | Ala | Ile | Ile | Pro | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |

Gly Pro Ala Pro Glu Thr Ser Thr Ser Ser Pro Thr Arg Ser Lys Glu
 115 120 125
 Ser Ala Val Cys Thr Ala Leu Pro Asn Gly Ser Lys Met Glu Ala Arg
 130 135 140
 Ser Ser Glu Ile Leu Ser Gly Ile Leu Asn Ala Leu Asn Ala Gly Ile
 145 150 155 160
 Thr Arg Tyr Ser Ala Lys Gln Pro Gly Arg Phe Thr Pro Thr Pro Thr
 165 170 175
 Val Leu Arg His Arg Trp Val Arg Pro Pro Arg Gln Leu Arg Gln
 180 185 190

<210> 7779

<211> 310

<212> PRT

<213> Enterobacter cloacae

<400> 7779

Arg Tyr Arg Arg Ser Arg Lys Leu Ile Phe Met Ala Phe Leu Ser Val
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 Ser Leu Leu Ala Ala Ile Gly Gln Asp Thr Glu Val Ile Ile Phe Asn
 35 40 45
 Asp Asn Ser Glu Asp Ala Thr Gln Ala Ile Ile Glu Glu Trp Ser Pro
 50 55 60
 Lys Phe Pro Gln Ile Ile Thr Arg Thr Val Asn Phe Arg Asn Val Gly
 65 70 75 80
 Arg Val Arg Asn Ser Ala Val Ala Leu Ala Ser Gly Glu Tyr Ile Thr
 85 90 95
 Met Leu Asp Ser Asp Asp Cys Leu Lys Pro Gly Ser Leu Gly Asp Ala
 100 105 110
 Ile Ala Phe Leu Lys Ala Gln Arg Pro Asp Met Leu Leu Thr Arg Leu
 115 120 125
 Leu Glu Ile Arg Asp Pro Arg Lys Met Thr Ser Asp Trp Gln Gly Phe
 130 135 140
 Asn Pro Val Pro Leu Pro Arg Asn Glu Ala Val Ala Arg Phe Leu Arg
 145 150 155 160
 His Lys Asp Phe Gln Ala His Leu Ile Gly Gln Phe Ile His Arg Ser
 165 170 175
 Leu Tyr Glu Ser Asn Pro Ile Pro Pro Met Leu Cys Tyr Glu Asp Phe
 180 185 190
 Ala Val Phe Pro Gly Met Leu Met Gln Ser Asn Lys Ile Val Tyr Gln
 195 200 205
 Arg Gln Gly His Tyr Tyr Tyr Ile Lys Arg Arg Asp Ser Leu Ser Ser
 210 215 220
 Thr Leu Asp Ala Ser Lys Ile Ser Thr Leu Val Glu Cys Thr Leu Gln
 225 230 235 240
 Met Glu Arg Thr Phe Pro Ser Ser Tyr Lys His Leu Val Asn Cys His
 245 250 255
 Trp Phe Asp Ile Tyr Ser Asn His Arg Ser Cys Leu Thr Asp Gln Gln
 260 265 270
 Leu Gln Leu Val Lys Gln Arg Val Lys Ala Met Tyr Thr Leu Ser Phe
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<210> 7780

<211> 387

<212> PRT

<213> Enterobacter cloacae

<400> 7780

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 Phe Val Ser Arg Ala Leu Thr Ala Leu Ser Asn Gln Asn Leu Glu Leu
 35 40 45
 Asn Val Ile Thr Arg Glu Trp Gln Gly Glu Lys Gln Asp Asp Trp His
 50 55 60
 Ile His Ile Cys Asp Pro Arg Lys Trp Gly Arg Ile Ser Arg Glu Arg
 65 70 75 80
 Gly Phe Ala His Ala Arg Ala Leu Trp Gln Gln Gln Phe Asp
 85 90 95
 Ile Val Gln Ser His Glu Arg Ile Pro Gly Cys Asp Ile Tyr Arg Ala
 100 105 110
 Gly Asp Gly Val His Arg Arg Trp Leu Leu Gln Arg Thr Arg Ile Leu
 115 120 125
 Pro Ala Trp Arg Ala Lys Leu Leu Met His Asp Arg Tyr His Arg Tyr
 130 135 140
 Val Met Asn Ala Glu Arg Glu Met Tyr Gln Ala Pro Glu Leu Lys Ala
 145 150 155 160
 Val Ile Cys Asn Ala Glu Met Ile Lys Arg Glu Ile Val Glu Asp Phe
 165 170 175
 Asp Ile Asp Ala Lys Lys Ile His Val Ile Tyr Asn Ser Ile Asp Ser
 180 185 190
 Ser Arg Phe Val Pro Ala Glu Glu Arg Gln Arg Ala Val Leu Arg Gln
 195 200 205
 Gln Phe Gly Leu Pro Ala Asp Ala Val Ile Phe Cys Phe Val Gly Ser
 210 215 220
 Gly Phe Glu Arg Lys Gly Leu Ala Ser Ala Ile Arg Ala Ile Ala Gly
 225 230 235 240
 Thr Ser Ala Trp Leu Val Val Val Gly Gln Asp Lys Ala Glu Ser Arg
 245 250 255
 Tyr Arg Asp Leu Ala Arg Ser Leu Gly Cys Glu Gly Gln Ile Arg Phe
 260 265 270
 Leu Gly Met Gln Lys Glu Thr Leu Pro Phe Tyr Gln Leu Ser Asp Gly
 275 280 285
 Leu Leu Leu Pro Thr Leu Tyr Asp Pro Phe Pro Asn Val Ile Leu Glu
 290 295 300
 Ala Met Ala Cys Gly Leu Pro Val Ile Thr Ser Glu Ser Cys Gly Gly
 305 310 315 320
 Ser Glu Phe Ile Glu Gln Gly Gln Asn Gly Phe Tyr Cys Asp Ala Leu
 325 330 335
 Asp Ile His Thr Leu Lys Glu Ala Val Met Ser Ile Pro Ser Leu Glu
 340 345 350
 Lys Asn Asn Asn Met Gly Leu Ala Ala Arg Glu Arg Val Arg Glu Ala
 355 360 365
 Thr Pro Glu Lys Leu Ser Ser Gln Leu Ile Ser Leu Tyr Gln Lys Leu
 370 375 380
 Leu Asp
 385

<210> 7781

<211> 283

<212> PRT

<213> Enterobacter cloacae

<400> 7781

Ser Pro Ala Ser Glu Pro Gly Arg Thr Asp Pro Ser Ala Ala Thr Ser

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| 1 | | | | 5 | | | | | 10 | | | | 15 | | |
| Ala | Thr | Leu | Ser | Ala | Ala | Ala | Glu | Pro | Leu | Met | Ser | Thr | Arg | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Val | Met | Ile | Ala | Lys | Asn | Ala | Ala | Asp | Leu | Leu | Pro | Asp | Cys | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Val | Ala | Trp | Ala | Asp | Glu | Ile | Val | Ile | Leu | Asp | Ser | Gly | Ser |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Thr | Asp | Asn | Thr | Ala | Asp | Val | Ala | Arg | Ala | Ala | Gly | Ala | Lys | Val | Phe |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Thr | Asp | Thr | Asp | Trp | Gln | Gly | Tyr | Gly | Ile | Gln | Arg | Gln | Arg | Ala | Gln |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Tyr | Ala | Thr | Gly | Asp | Tyr | Val | Leu | Met | Ile | Asp | Thr | Asp | Glu | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Thr | Pro | Glu | Leu | Arg | Gln | Ala | Ile | Gln | Thr | Val | Leu | Ala | Ala | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Pro | Gly | Ala | Val | Tyr | Ser | Ile | Ala | Arg | Arg | Asn | Tyr | Phe | Leu | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Arg | Phe | Met | Arg | His | Ser | Gly | Trp | Tyr | Pro | Asp | Arg | Val | Met | Arg | Leu |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Tyr | Ala | Arg | Glu | Arg | Tyr | Gln | Tyr | Asn | Asp | Asn | Leu | Val | His | Glu | Ser |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Ala | Cys | Asp | Asn | Ala | Gln | Val | Ile | Pro | Leu | Thr | Gly | Asp | Leu | Leu |
| | | | 180 | | | | 185 | | | | | 190 | | | |
| His | Leu | Thr | Cys | Arg | Asp | Phe | Ala | Ser | Phe | Gln | Arg | Lys | Gln | Leu | Asn |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Tyr | Ala | Thr | Ala | Trp | Ala | Gln | Glu | Arg | His | Ala | Arg | Gly | Lys | Lys | Ala |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Thr | Leu | Thr | Gly | Ile | Phe | Thr | His | Thr | Leu | Gly | Ala | Phe | Leu | Lys | Thr |
| 225 | | | | | 230 | | | | 235 | | | | | 240 | |
| Leu | Leu | Leu | Arg | Gly | Gly | Val | Leu | Asp | Gly | Lys | Gln | Gly | Trp | Leu | Leu |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ala | Val | Val | Asn | Ala | Gln | Tyr | Thr | Phe | Asn | Lys | Tyr | Thr | Glu | Leu | Trp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Leu | Asn | Arg | Gly | Tyr | Ser | Glu | Lys | Thr | | | | | | |
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<210> 7782

<211> 161

<212> PRT

<213> Enterobacter cloacae

<400> 7782

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Gly | His | Ile | Asp | Ile | Ile | Thr | Arg | Ala | Ala | Cys | Met | Phe | Asp | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Ile | Met | Thr | Ile | Ser | Ala | Ser | Pro | Ser | Lys | Lys | Pro | Met | Phe | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Asn | Glu | Arg | Val | Gln | Leu | Ala | Thr | Asp | Ala | Ile | Ser | His | Leu | Ser |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Asn | Val | Glu | Val | Val | Gly | Phe | Ser | Asp | Leu | Met | Ala | Asn | Phe | Ala | Arg |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Asp | Arg | His | Ala | Asn | Ile | Leu | Ile | Arg | Gly | Leu | Arg | Ala | Val | Ala | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Phe | Glu | Tyr | Glu | Met | Gln | Leu | Ala | His | Met | Asn | Arg | His | Leu | Met | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Leu | Glu | Ser | Val | Phe | Leu | Met | Pro | Ser | Lys | Glu | Trp | Ser | Phe | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ser | Ser | Leu | Val | Lys | Glu | Val | Ala | Arg | His | His | Gly | Asp | Val | Thr |
| | | 130 | | | | 135 | | | | | 140 | | | | |
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145

150

155

160

<210> 7783

<211> 134

<212> PRT

<213> Enterobacter cloacae

<400> 7783

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| Ser | Val | Asn | Arg | Gln | Arg | Gly | Met | Ser | Ser | Leu | Ala | Leu | Val | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Leu | Val | Leu | Gly | Thr | Leu | Ile | Leu | Thr | Gly | Leu | Asn | Gln | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Thr | Phe | Ser | Thr | Leu | Val | Ser | Gly | Glu | Ser | Leu | Ser | Val | Arg | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ala | Ala | Val | Gln | Ser | Ala | Leu | Glu | Trp | Gly | Arg | Val | Gln | Glu | Trp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Leu | Gln | Pro | Glu | Val | Gln | Cys | Lys | Gln | Thr | Gln | Arg | Leu | Arg | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Cys | Val | Arg | Leu | Phe | Gly | Glu | Arg | Val | Leu | Leu | Ile | Ala | Gly | Asn | Asp |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asp | Leu | Leu | Leu | Trp | Gln | Gly | Gly | Asp | Ile | Ala | Glu | Gly | Gln | Ile | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ser | Ala | His | Gly | Trp | Ser | Asp | Phe | Cys | Pro | Leu | Lys | Glu | Ser | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Cys | Gln | Leu | Pro | | | | | | | | | | | |
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<210> 7784

<211> 969

<212> PRT

<213> Enterobacter cloacae

<400> 7784

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| Cys | Ser | Arg | Asp | Lys | Glu | Val | Val | Met | Pro | Gly | Ser | Thr | Leu | Phe | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Phe | Val | Leu | Phe | Ile | Ala | Leu | Trp | Ala | Pro | Val | Thr | Gln | Ala | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Gly | Trp | Gln | Pro | Val | Lys | Glu | Thr | Ile | Arg | Lys | Ser | Asp | Lys | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Arg | Gln | Tyr | Gln | Ala | Ile | Arg | Leu | Asp | Asn | Gly | Met | Thr | Val | Leu |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Leu | Val | Ser | Asp | Pro | Gln | Ala | Val | Lys | Ser | Leu | Ser | Ala | Leu | Val | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Pro | Val | Gly | Ser | Leu | Glu | Asp | Pro | Asp | Ala | His | Pro | Gly | Leu | Ala | His |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Tyr | Leu | Glu | His | Met | Thr | Leu | Met | Gly | Ser | Lys | Lys | Tyr | Pro | Gln | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Ser | Leu | Ser | Glu | Phe | Leu | Lys | Met | His | Gly | Gly | Ser | His | Asn | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Thr | Ala | Pro | Tyr | Arg | Thr | Ala | Phe | Tyr | Leu | Glu | Val | Glu | Asn | Asp |
| | | 130 | | | | 135 | | | | | | 140 | | | |
| Ala | Leu | Asp | Gly | Ala | Val | Asp | Arg | Leu | Ala | Asp | Ala | Ile | Ala | Ala | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Leu | Asp | Lys | Lys | Tyr | Ala | Asp | Arg | Glu | Arg | Asn | Ala | Val | Asn | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Glu | Leu | Thr | Met | Ala | Arg | Thr | Arg | Asp | Gly | Met | Arg | Met | Ala | Gln | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Ala | Glu | Thr | Ile | Asn | Pro | Ala | His | Pro | Gly | Ser | Arg | Phe | Ser | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Asn | Leu | Glu | Thr | Leu | Ser | Asp | Lys | Pro | Gly | Ser | Pro | Val | Leu | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | His | Ala | Phe | Arg | Glu | Lys | Tyr | Tyr | Ser | Ala | Asn | Leu | Met | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Val | Ile | Tyr | Ser | Asn | Lys | Pro | Leu | Pro | Thr | Leu | Ala | Asn | Met | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Gln | Thr | Tyr | Gly | Arg | Val | Pro | Asn | Lys | Asn | Ile | Asp | Leu | Pro | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Asn | Val | Pro | Val | Val | Thr | Asp | Ala | Gln | Lys | Gly | Ile | Val | Ile | His |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Tyr | Val | Pro | Ala | Leu | Pro | Arg | Lys | Val | Leu | Arg | Val | Glu | Phe | Arg | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Asn | Asn | Thr | Ala | Gln | Phe | Arg | Ser | Lys | Thr | Asp | Glu | Leu | Val | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Tyr | Leu | Ile | Gly | Asn | Arg | Ser | Pro | Gly | Thr | Leu | Ser | Asp | Trp | Leu | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Lys | Gln | Gly | Leu | Val | Glu | Gly | Ile | Arg | Ala | Asp | Ser | Asp | Pro | Val | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Gly | Asn | Ser | Gly | Val | Leu | Ala | Ile | Ser | Ala | Thr | Leu | Thr | Asp | Lys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Leu | Ala | His | Arg | Asn | Asp | Val | Val | Ala | Ala | Ile | Phe | Ser | Tyr | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Leu | Leu | Arg | Asp | Lys | Gly | Val | Asp | Lys | Arg | Tyr | Phe | Asp | Glu | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | His | Val | Leu | Asp | Leu | Asp | Phe | Arg | Tyr | Pro | Ser | Ile | Thr | Arg | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Met | Asp | Tyr | Val | Glu | Trp | Leu | Ala | Asp | Thr | Met | Ile | Arg | Val | Pro | Val |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Glu | His | Thr | Leu | Asp | Ala | Val | Asn | Ile | Ala | Asp | Gln | Phe | Asp | Ala | Gly |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Leu | Lys | Ala | Arg | Leu | Ala | Met | Met | Thr | Pro | Gln | Asn | Ala | Arg | Val |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Trp | Tyr | Ile | Ser | Pro | Asn | Glu | Pro | His | Asn | Lys | Met | Ala | Tyr | Phe | Val |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asp | Ala | Pro | Tyr | Gln | Val | Glu | Lys | Ile | Ser | Glu | Gln | Thr | Phe | Ala | Gly |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Trp | Gln | Lys | Lys | Ala | Gly | Glu | Ile | Ala | Leu | Lys | Leu | Pro | Glu | Leu | Asn |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Pro | Tyr | Ile | Pro | Asp | Asp | Phe | Ser | Leu | Ile | Lys | Pro | Ala | Lys | Ala | Tyr |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Pro | His | Pro | Glu | Leu | Ile | Val | Asp | Glu | Pro | Thr | Leu | Arg | Val | Val | Tyr |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Thr | Pro | Ser | Arg | Tyr | Phe | Ala | Asp | Glu | Pro | Lys | Ala | Asp | Val | Ser | Val |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Val | Leu | Arg | Asn | Pro | Lys | Ala | Met | Asp | Ser | Ala | Arg | Asn | Gln | Val | Leu |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Phe | Ala | Leu | Asn | Asp | Tyr | Leu | Ala | Gly | Ile | Ala | Leu | Asp | Gln | Leu | Ser |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Asn | Gln | Ala | Ala | Val | Gly | Gly | Ile | Ser | Phe | Ser | Thr | Asn | Ala | Asn | Asn |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Gly | Leu | Met | Val | Asn | Ala | Asn | Gly | Tyr | Thr | Gln | Arg | Leu | Pro | Gln | Leu |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Phe | Gln | Ala | Leu | Leu | Asp | Gly | Tyr | Phe | Ser | Tyr | Thr | Pro | Thr | Glu | Glu |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Gln | Leu | Glu | Gln | Ala | Lys | Ser | Trp | Tyr | Ala | Gln | Met | Met | Asp | Ser | Ala |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Glu | Lys | Gly | Lys | Ala | Tyr | Asp | Gln | Ala | Ile | Met | Pro | Ala | Gln | Met | Leu |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Ser | Gln | Ile | Pro | Tyr | Phe | Gln | Arg | Glu | Asp | Arg | Arg | Ala | Ile | Leu | Pro |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Ser | Val | Thr | Leu | Lys | Glu | Val | Leu | Ala | Tyr | Arg | Asp | Ala | Leu | Lys | Thr |

| | | |
|---|-----|-----|
| 690 | 695 | 700 |
| Asn Thr Arg Pro Glu Phe Leu Val Val Gly Asn Met Ser Glu Asp Gln | | |
| 705 | 710 | 715 |
| Ala Lys Thr Leu Ala Gln Asn Val Arg Ala Gln Leu Gly Ser Lys Gly | | |
| | 725 | 730 |
| Asp Glu Trp Cys Arg Asn Gln Asp Val Leu Val Glu Lys Lys Gln Asn | | |
| | 740 | 745 |
| Val Ile Phe Glu Lys Ala Gly Ser Ser Thr Asp Ser Ala Leu Ala Ala | | |
| | 755 | 760 |
| Val Phe Val Pro Val Gly Tyr Asp Glu Phe Thr Ser Ser Ala Gln Ser | | |
| | 770 | 775 |
| Ala Val Leu Gly Gln Ile Gln Pro Trp Phe Tyr Asn Gln Leu Arg | | |
| 785 | 790 | 795 |
| Thr Glu Glu Gln Leu Gly Tyr Ala Val Phe Ala Phe Ser Met Asn Val | | |
| | 805 | 810 |
| Gly Arg Gln Trp Gly Leu Gly Phe Leu Leu Gln Ser Ser Asp Lys Gln | | |
| | 820 | 825 |
| Pro Ala Tyr Leu Trp Gln Arg Tyr Gln Ala Phe Phe Pro Gln Ala Glu | | |
| | 835 | 840 |
| Ala Lys Leu Arg Ala Met Lys Pro Glu Glu Phe Ala Gln Ile Gln Gln | | |
| | 850 | 855 |
| Ala Val Ile Ala Gln Val Met Gln Pro Pro Gln Thr Leu Gly Glu Glu | | |
| 865 | 870 | 875 |
| Ala Ser Gln Leu Ser Lys Asp Phe Asp Arg Gly Asn Met Lys Phe Asp | | |
| | 885 | 890 |
| Ser Arg Asp Lys Ile Val Ala Glu Ile Lys Gln Leu Thr Pro Gln Lys | | |
| | 900 | 905 |
| Val Ala Asp Phe Phe His Gln Ala Val Val Lys Pro Gln Gly Met Ala | | |
| | 915 | 920 |
| Ile Leu Ser Gln Val Ser Gly Ser Gln Asn Gly Lys Thr Asp Tyr Val | | |
| | 930 | 935 |
| Lys Ser Lys Glu Trp Thr Val Trp Lys Ser Val Ser Ala Leu Gln Gln | | |
| 945 | 950 | 955 |
| Thr Met Pro Trp Ser Lys Lys Glu | | |
| | 965 | |

<210> 7785

<211> 446

<212> PRT

<213> Enterobacter cloacae

<400> 7785

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|---|-----|
| Met Thr Val Tyr Ala Ser Phe Val Lys Val Phe Gly Gln Phe Gly Arg | |
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| | 20 |
| Asn Ser Ala Ile Ser Arg Arg Arg Leu Leu Lys Gly Ala Gly Ala Met | |
| | 35 |
| Trp Leu Leu Ser Val Ser Gln Val Gly Leu Ala Ala Thr Ser Gln Val | |
| | 50 |
| Val Ala Val Arg Val Trp Pro Ser Ser Thr Tyr Thr Arg Val Thr Val | |
| 65 | 70 |
| Glu Ser Asn Arg Val Leu Lys Tyr Lys Gln Phe Ala Leu Ser Asn Pro | |
| | 85 |
| Glu Arg Val Val Val Asp Leu Glu Gly Val Asn Leu Asn Ser Val Leu | |
| | 100 |
| Lys Gly Met Ala Ala Gln Ile Arg Gly Asp Asp Pro Phe Ile Lys Ser | |
| | 115 |
| Ala Arg Val Gly Gln Phe Asp Pro Gln Thr Val Arg Met Val Phe Glu | |
| | 130 |
| Leu Lys Gln Asn Val Lys Pro Gln Leu Phe Ala Leu Ala Pro Val Ala | |
| | 135 |
| | 140 |

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 | | | | | 150 | | | | 155 | | | | 160 |
| Ala | Phe | Lys | Glu | Arg | Leu | Val | Met | Asp | Leu | Tyr | Pro | Ala | Asn |
| | | | | 165 | | | | | 170 | | | | 175 |
| Asp | Ile | Gln | Asp | Pro | Leu | Leu | Ala | Leu | Glu | Asp | Tyr | Asn | Lys |
| | | | 180 | | | | | 185 | | | | 190 | |
| Asp | Leu | Asp | Ser | Gln | Val | Pro | Pro | Ala | Gln | Ser | Gly | Pro | Lys |
| | | 195 | | | | | 200 | | | | 205 | | |
| Lys | Ala | Gly | Arg | Asp | Arg | Pro | Ile | Val | Ile | Met | Leu | Asp | Pro |
| | 210 | | | | | 215 | | | | 220 | | | |
| Gly | Gly | Glu | Asp | Ser | Gly | Ala | Val | Gly | Lys | Tyr | Arg | Thr | Arg |
| 225 | | | | | 230 | | | | | 235 | | | |
| Asp | Val | Val | Leu | Gln | Ile | Ala | Arg | Arg | Leu | Lys | Ala | Leu | Ile |
| | | | | 245 | | | | | 250 | | | | 255 |
| Glu | Gly | Asn | Met | Arg | Ala | Tyr | Met | Thr | Arg | Asn | Glu | Asp | Val |
| | | | 260 | | | | | 265 | | | | | 270 |
| Pro | Leu | Lys | Val | Arg | Val | Ala | Lys | Ala | Gln | Lys | Gln | Arg | Ala |
| | | 275 | | | | | 280 | | | | | 285 | |
| Phe | Val | Ser | Ile | His | Ala | Asp | Ala | Phe | Thr | Ser | Arg | Gln | Pro |
| | 290 | | | | | 295 | | | | | 300 | | |
| Ser | Ser | Val | Phe | Ala | Leu | Ser | Thr | Lys | Gly | Ala | Thr | Ser | Thr |
| 305 | | | | | 310 | | | | | 315 | | | |
| Arg | Tyr | Leu | Ala | Asp | Thr | Gln | Asn | Ala | Ser | Asp | Leu | Ile | Gly |
| | | | | 325 | | | | | 330 | | | | 335 |
| Ser | Lys | Ser | Gly | Asp | Arg | Tyr | Val | Asp | His | Thr | Met | Phe | Asp |
| | | | 340 | | | | | 345 | | | | 350 | |
| Gln | Ser | Leu | Thr | Ile | Thr | Asp | Ser | Leu | Lys | Phe | Gly | Lys | Ala |
| | | 355 | | | | | 360 | | | | | 365 | |
| Gly | Lys | Leu | Gly | Arg | Val | Asn | Lys | Leu | His | Lys | Asn | Ser | Val |
| | 370 | | | | | 375 | | | | | 380 | | |
| Ala | Gly | Phe | Ala | Val | Leu | Lys | Ala | Pro | Asp | Ile | Pro | Ser | Ile |
| 385 | | | | | 390 | | | | | 395 | | | |
| Glu | Thr | Ala | Phe | Ile | Ser | Asn | Val | Glu | Glu | Glu | Arg | Lys | Leu |
| | | | | 405 | | | | | 410 | | | | 415 |
| Ala | Lys | Phe | Gln | Gln | Glu | Val | Ala | Glu | Ser | Ile | Leu | Ala | Gly |
| | | | 420 | | | | | 425 | | | | | 430 |
| Ala | Tyr | Phe | Ser | Asp | Gly | Glu | Thr | Leu | Ala | Arg | Arg | Gly | |
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<210> 7786

<211> 293

<212> PRT

<213> Enterobacter cloacae

<400> 7786

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| Gln | Met | Asn | Ser | Gly | Tyr | Leu | His | Phe | Pro | Glu | Phe | Asp | Pro | Val | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Ser | Ile | Gly | Pro | Val | Ala | Leu | His | Trp | Tyr | Gly | Leu | Met | Tyr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Gly | Phe | Val | Phe | Ala | Met | Trp | Leu | Ala | Gly | Arg | Arg | Ala | Ser | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Gly | Ser | Gly | Trp | Thr | Lys | Asn | Glu | Val | Glu | Asn | Leu | Leu | Tyr | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Phe | Leu | Gly | Val | Phe | Leu | Gly | Gly | Arg | Ile | Gly | Tyr | Val | Leu | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Tyr | Asn | Phe | Pro | Val | Phe | Leu | Asn | Asp | Pro | Leu | Tyr | Leu | Phe | Arg | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Trp | Asp | Gly | Gly | Met | Ser | Phe | His | Gly | Gly | Leu | Ile | Gly | Val | Ile | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Met | Val | Ile | Phe | Ala | Arg | Arg | Thr | Lys | Arg | Asn | Phe | Phe | Gln | Val |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ala | Asp | Phe | Ile | Ala | Pro | Leu | Ile | Pro | Phe | Gly | Leu | Gly | Ala | Gly | Arg |

| | | |
|---|-----|-----|
| 130 | 135 | 140 |
| Leu Gly Asn Phe Ile Asn Gly Glu Leu Trp Gly Arg Val Asp Pro Ser | | |
| 145 | 150 | 155 |
| Val Pro Phe Thr Met Leu Phe Pro Gly Ser Arg Ala Glu Asp Ile Ala | | |
| | 165 | 170 |
| Leu Leu Pro Ser His Pro Glu Trp Gln Ser Ile Phe Asp Thr Tyr Gly | | |
| | 180 | 185 |
| Val Leu Pro Arg His Met Ser Gln Leu Tyr Glu Leu Ala Leu Glu Gly | | |
| | 195 | 200 |
| Val Val Leu Phe Ile Ile Leu Asn Leu Tyr Ile Arg Lys Pro Arg Pro | | |
| | 210 | 215 |
| Met Gly Ala Val Ser Gly Leu Phe Leu Ile Gly Tyr Gly Ala Phe Arg | | |
| 225 | 230 | 235 |
| Ile Ile Val Glu Phe Phe Arg Gln Pro Asp Ala Gln Phe Thr Gly Glu | | |
| | 245 | 250 |
| Trp Val Gln Tyr Ile Ser Met Gly Gln Ile Leu Ser Ile Pro Met Ile | | |
| | 260 | 265 |
| Val Ala Gly Ala Ile Met Met Ile Trp Ala Tyr Arg Arg Arg Pro Gln | | |
| | 275 | 280 |
| Gln Gln Leu Ser | | 285 |
| 290 | | |

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<211> 267

<212> PRT

<213> Enterobacter cloacae

<400> 7787

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| | 20 |
| Gly His Gln Met Arg Phe Asn Leu Gln Glu Gly Phe Pro Leu Val Thr | |
| | 35 |
| Thr Lys Arg Cys His Leu Arg Ser Ile Ile His Glu Leu Leu Trp Phe | |
| | 50 |
| Leu Gln Gly Asp Thr Asn Val Ala Tyr Leu His Glu Asn Asn Val Ser | |
| 65 | 70 |
| Ile Trp Asp Glu Trp Ala Asp Glu Asn Gly Asp Leu Gly Pro Val Tyr | |
| | 85 |
| Gly Lys Gln Trp Arg Ala Trp Pro Thr Pro Asp Gly Arg His Ile Asp | |
| | 100 |
| Gln Ile Thr Thr Val Ile Asn Gln Leu Lys Asn Asp Pro Asp Ser Arg | |
| | 115 |
| Arg Ile Ile Val Ser Ala Trp Asn Val Gly Glu Leu Asp Lys Met Ala | |
| | 130 |
| Leu Ala Pro Cys His Ala Phe Phe Gln Phe Tyr Val Ala Asp Gly Lys | |
| 145 | 150 |
| Leu Ser Cys Gln Leu Tyr Gln Arg Ser Cys Asp Val Phe Leu Gly Leu | |
| | 165 |
| Pro Phe Asn Ile Ala Ser Tyr Ala Leu Leu Val His Met Met Ala Gln | |
| | 180 |
| Gln Cys Asp Leu Glu Val Gly Asp Phe Val Trp Thr Gly Gly Asp Thr | |
| | 195 |
| His Leu Tyr Ser Asn His Met Glu Gln Thr His Leu Gln Leu Thr Arg | |
| | 210 |
| Glu Pro Arg Ala Leu Pro Lys Leu Val Ile Lys Arg Lys Pro Asp Ser | |
| 225 | 230 |
| Ile Phe Asp Tyr Arg Phe Asp Asp Phe Glu Ile Glu Gly Tyr Asp Pro | |
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| His Pro Gly Ile Lys Ala Pro Val Ala Ile | |
| | 250 |
| | 255 |

260

265

<210> 7788

<211> 193

<212> PRT

<213> Enterobacter cloacae

<400> 7788

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| Cys | Arg | Arg | Arg | Arg | Cys | Met | Pro | Val | Asn | Arg | Lys | Gly | Phe | Ser | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Glu | Val | Leu | Ile | Ala | Met | Thr | Ile | Ser | Ser | Ile | Leu | Leu | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ser | Arg | Phe | Leu | Pro | Gly | Leu | Gln | Arg | Gly | Val | Leu | Leu | Gln | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Gln | Gln | Glu | Leu | Glu | Asp | Glu | Val | Trp | Gln | Arg | Leu | Phe | Ala | Val |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gly | Lys | Gln | Phe | Gln | Arg | Ala | Gly | Tyr | Cys | Ala | Gly | His | Cys | Gln | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Gln | Gly | Met | Ile | Ile | Gly | Arg | Gln | Gly | Arg | Cys | Ala | Ile | Val | Gln | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Ala | Asn | Ser | Asn | Gly | Gln | Trp | Asp | Ser | Thr | Ala | Ser | Glu | Asn | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Thr | Gly | Phe | Arg | Leu | Glu | Ser | Gly | Ser | Leu | Glu | Thr | Leu | Arg | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Thr | Ser | Cys | Asp | Gly | Lys | Gly | Trp | Asp | Lys | Leu | Thr | Asp | Pro | Asp |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Arg | Val | Leu | Ile | Glu | Gln | Phe | Met | Val | Thr | Lys | Thr | Asp | Arg | Ala | Gly |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Phe | Ala | Pro | Val | Ile | Ser | Ile | Glu | Leu | Arg | Ala | Arg | Arg | Lys | Gly | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Thr | Ala | Pro | Phe | Ser | Ala | Arg | His | Thr | Val | Thr | Gly | Phe | Asn | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |

<210> 7789

<211> 617

<212> PRT

<213> Enterobacter cloacae

<400> 7789

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Cys | Ser | Lys | His | Gly | Gly | Asp | Gly | Met | Thr | Met | Gln | Asp | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Leu | Asp | Ala | Val | Glu | Gln | Arg | Val | Leu | Arg | Gln | Leu | Asp | Val | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Ala | Met | Met | Ile | Ala | Ala | Asp | Gln | Pro | Ala | Val | Met | Leu | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Leu | Leu | Ser | Lys | Asp | Ala | Gly | Glu | Gly | His | Val | Cys | Leu | Pro | Leu |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Arg | Leu | Val | Val | Asp | Glu | Lys | Met | Pro | Pro | Val | Leu | Gln | Ser | Cys |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Phe | Ala | Leu | Leu | Gly | Asp | Lys | Val | Asp | Trp | Gln | Lys | Ile | Leu | Arg | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Ser | Ala | Val | Gly | Pro | Gly | Asp | Asn | Gln | Ala | Pro | Leu | Ile | Leu | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Glu | Arg | Leu | Tyr | Leu | Asn | Arg | Leu | Trp | Arg | Asn | Glu | Leu | Thr | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Arg | Phe | Phe | Ser | Glu | Thr | Asn | Ala | Pro | Leu | Pro | Cys | Asp | Glu | Ala |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Gln | Leu | Arg | Gln | Thr | Leu | Asp | Arg | Leu | Phe | Asp | Ser | Gly | Glu | Asp | Thr |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Trp | Gln | Lys | Val | Ala | Ala | Ala | Val | Ala | Leu | Thr | Arg | Arg | Ile | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Ile | Ser | Gly | Gly | Pro | Gly | Thr | Gly | Lys | Thr | Thr | Thr | Val | Ala | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Leu | Ala | Ala | Leu | Ile | Gln | Leu | Ser | Gly | Glu | Gln | Arg | Cys | Arg | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Leu | Ala | Ala | Pro | Thr | Gly | Lys | Ala | Ala | Ala | Arg | Leu | Thr | Glu | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gly | Gly | Ala | Met | Gln | Gln | Leu | Pro | Leu | Thr | Gln | Glu | Gln | Leu | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Phe | Pro | Gly | Glu | Ala | Ser | Thr | Leu | His | Arg | Leu | Leu | Gly | Ala | Gln |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Pro | Gly | Ser | Gln | Arg | Leu | Arg | Tyr | His | Ala | Gly | Asn | Pro | Leu | His | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Val | Leu | Val | Val | Asp | Glu | Ala | Ser | Met | Ile | Asp | Leu | Thr | Met | Met |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Arg | Leu | Ile | Asp | Ala | Leu | Pro | Pro | His | Ala | Arg | Val | Val | Phe | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gly | Asp | Arg | Asp | Gln | Leu | Ala | Ser | Val | Glu | Ala | Gly | Ala | Val | Leu | Gly |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Asp | Ile | Cys | Thr | Tyr | Ala | Ser | Tyr | Gly | Tyr | Thr | Ala | Ala | Arg | Ala | Gln |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Glu | Leu | Ala | Arg | Leu | Thr | Gly | Cys | Ser | Leu | Glu | Pro | Asp | His | Thr | Pro |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Ala | Gly | Ala | Leu | Arg | Asp | Ser | Leu | Cys | Leu | Leu | Gln | Lys | Ser | Tyr |
| | 355 | | | | | 360 | | | | | | 365 | | | |
| Arg | Phe | Gly | Ser | Asp | Ser | Gly | Ile | Gly | Gln | Leu | Ala | Ala | Ala | Val | Asn |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Arg | Gly | Asp | Arg | His | Ala | Thr | Arg | Thr | Val | Phe | Asp | Gly | Thr | Phe | Thr |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asp | Ile | Glu | Lys | Lys | Ser | Leu | Gln | Ser | Gly | Glu | Glu | Tyr | Gln | Ala | Met |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Leu | Glu | Glu | Ala | Leu | Gln | Gly | Tyr | Gln | His | Phe | Leu | Ser | Cys | Val | Gln |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Gln | Cys | Ser | Gln | Pro | Gly | Gln | Val | Ile | Ala | Ala | Phe | Gly | Glu | Tyr | Gln |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Leu | Leu | Cys | Ala | Leu | Arg | Glu | Gly | Pro | Phe | Gly | Val | Thr | Gly | Leu | Asn |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Asp | Arg | Leu | Glu | Gln | Leu | Leu | Val | Gln | Lys | Arg | Lys | Ile | Asn | Arg | Gln |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Leu | His | Ser | Arg | Trp | Tyr | Glu | Gly | Arg | Pro | Val | Met | Ile | Ser | Arg | Asn |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Asp | Ser | Ala | Leu | Gly | Leu | Phe | Asn | Gly | Asp | Ile | Gly | Ile | Ala | Leu | Asp |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Arg | Gly | Asn | Gly | Leu | Arg | Val | Trp | Phe | Gln | Leu | Pro | Asp | Gly | Ser | Val |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Lys | Ser | Val | Gln | Pro | Ser | Arg | Leu | Pro | Glu | His | Glu | Thr | Ala | Trp | Ala |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Met | Thr | Val | His | Lys | Ser | Gln | Gly | Ser | Glu | Phe | Asn | His | Ala | Ala | Leu |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ile | Leu | Pro | Thr | Gln | Leu | Ser | Pro | Val | Val | Thr | Arg | Glu | Leu | Val | Tyr |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Thr | Ala | Ile | Thr | Arg | Ala | Arg | Gln | Arg | Leu | Ser | Leu | Tyr | Ala | Asp | Glu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Arg | Val | Leu | Ser | Gln | Ala | Ile | Ala | Thr | Arg | Thr | Glu | Arg | Arg | Ser | Gly |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Leu | Ser | Ala | Ile | Phe | Glu | Ser | Val | | | | | | | | |
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<210> 7790

<211> 120

<212> PRT

<213> Enterobacter cloacae

<400> 7790

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| Arg | Gly | Ser | Phe | Arg | Pro | Arg | Gly | Glu | Asp | Leu | Ala | Ser | Thr | Arg | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Leu | Arg | Tyr | Lys | Leu | Pro | Lys | Arg | Leu | Val | Arg | Trp | Asp | Thr | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Val | Cys | Ile | Gly | Gln | Lys | Gln | Lys | Trp | Phe | Leu | Leu | Gln | Leu | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Asn | Asp | Ser | Asp | Ile | Asn | Met | Gln | Thr | Ser | Ser | Thr | Pro | Glu | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Gly | Trp | Arg | Trp | Val | Ser | Tyr | Trp | Tyr | Pro | Val | Arg | Gln | Val | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ser | Phe | Lys | Arg | Asp | Val | Tyr | Arg | Arg | Val | Met | Lys | Glu | Phe | Ala | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Val | Met | Gln | Leu | Gln | Glu | Thr | Pro | Pro | Lys | Pro | Gln | Ser | Ala | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Trp | Arg | Arg | Lys | Arg | Gly | | | | | | | | | |
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<210> 7791

<211> 753

<212> PRT

<213> Enterobacter cloacae

<400> 7791

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| Ala | Thr | Gln | Ile | Met | Leu | Thr | Arg | Leu | Arg | Glu | Ile | Val | Glu | Lys | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ser | Ala | Pro | Arg | Leu | Asn | Glu | Ala | Leu | Asn | Ile | Leu | Val | Thr | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Cys | Leu | Ala | Met | Glu | Thr | Glu | Val | Cys | Ser | Val | Tyr | Leu | Ala | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Asp | Arg | Arg | Cys | Tyr | Tyr | Leu | Met | Ala | Thr | Arg | Gly | Leu | Lys | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Arg | Gly | Arg | Thr | Val | Thr | Leu | Ala | Phe | Asp | Glu | Gly | Ile | Val | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Val | Gly | Arg | Leu | Ala | Glu | Pro | Ile | Asn | Leu | Ala | Asp | Ala | Gln | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| His | Pro | Ser | Phe | Lys | Tyr | Ile | Pro | Ser | Val | Lys | Glu | Glu | Arg | Phe | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Phe | Leu | Gly | Val | Pro | Ile | Ile | Gln | Arg | Arg | Gln | Leu | Leu | Gly | Val |
| | | | 115 | | | | | 120 | | | | 125 | | | |
| Leu | Val | Val | Gln | Gln | Arg | Glu | Leu | Arg | Gln | Tyr | Asp | Glu | Ser | Glu | Glu |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Ser | Phe | Leu | Val | Thr | Leu | Ala | Thr | Gln | Met | Ala | Ala | Ile | Leu | Ser | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Gln | Leu | Ala | Ala | Leu | Phe | Gly | Gln | Tyr | Arg | His | Thr | Arg | Ile | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Leu | Pro | Ala | Ser | Pro | Gly | Val | Ala | Ile | Ala | Glu | Gly | Trp | Met | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Thr | Leu | Pro | Leu | Met | Glu | Gln | Val | Tyr | Glu | Ala | Ser | Thr | Leu | Asp |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Glu | Ala | Leu | Glu | Arg | Glu | Arg | Leu | Thr | Ala | Ala | Leu | Glu | Glu | Ala | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Glu | Phe | Arg | Arg | Tyr | Ser | Lys | Arg | Phe | Ala | Ala | Gly | Ala | Gln | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Thr | Ala | Ala | Ile | Phe | Asp | Leu | Tyr | Ser | His | Leu | Leu | Ser | Asp | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Leu | Arg | Arg | Glu | Leu | Phe | Ala | Glu | Val | Asp | Lys | Gly | Ser | Val | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Trp | Ala | Val | Lys | Lys | Val | Ile | Glu | Lys | Phe | Ala | Glu | Gln | Phe | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Leu | Thr | Asp | Gly | Tyr | Leu | Lys | Glu | Arg | Ala | Gly | Asp | Leu | Arg | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Gly | Gln | Arg | Leu | Leu | Phe | His | Leu | Asp | Asp | Thr | Ile | Gln | Gly | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Ala | Trp | Pro | Asn | Arg | Phe | Val | Leu | Val | Ala | Asp | Glu | Leu | Ser | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Thr | Thr | Leu | Ala | Glu | Leu | Pro | Gln | Asp | Arg | Leu | Ala | Gly | Val | Val | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Arg | Asp | Gly | Ala | Ala | Asn | Ser | His | Ala | Ala | Ile | Met | Val | Arg | Ala | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Ile | Pro | Thr | Val | Met | Gly | Ala | Asp | Ile | Gln | Pro | Ser | Val | Leu | His |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Arg | Arg | Thr | Leu | Val | Val | Asp | Gly | Tyr | Arg | Gly | Glu | Leu | Leu | Val | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | Glu | Pro | Val | Leu | Leu | Gln | Glu | Tyr | Gln | Arg | Leu | Ile | Ser | Glu | Glu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Asn | Glu | Leu | Ser | Lys | Leu | Ala | Glu | Asp | Asp | Val | Asn | Leu | Pro | Ala | Gln |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Lys | Ser | Gly | Glu | Arg | Val | Lys | Val | Met | Leu | Asn | Ala | Gly | Leu | Ser |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Pro | Glu | His | Glu | Glu | Lys | Leu | Gly | Ser | Arg | Ile | Asp | Gly | Ile | Gly | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Tyr | Arg | Thr | Glu | Ile | Pro | Phe | Met | Leu | Gln | Ser | Gly | Phe | Pro | Ser | Glu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Glu | Glu | Gln | Val | Ala | Gln | Tyr | Gln | Gly | Met | Leu | Gln | Met | Phe | Asn | Asp |
| | | | | 485 | | | | 490 | | | | | | 495 | |
| Lys | Pro | Val | Thr | Leu | Arg | Thr | Leu | Asp | Val | Gly | Ala | Asp | Lys | Gln | Leu |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Pro | Tyr | Met | Pro | Ile | Ser | Glu | Glu | Asn | Pro | Cys | Leu | Gly | Trp | Arg | Gly |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ile | Arg | Ile | Thr | Leu | Asp | Gln | Pro | Glu | Ile | Phe | Leu | Ile | Gln | Val | Arg |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Ala | Met | Leu | Arg | Ala | Asn | Ala | Ala | Thr | Gly | Asn | Leu | Ser | Ile | Leu | Leu |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Pro | Met | Val | Thr | Ser | Ile | Asp | Glu | Ile | Asp | Glu | Ala | Arg | Arg | Leu | Ile |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Glu | Arg | Ala | Gly | Arg | Glu | Val | Glu | Glu | Met | Ile | Gly | Tyr | Ala | Ile | Pro |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Lys | Pro | Arg | Ile | Gly | Val | Met | Leu | Glu | Val | Pro | Ser | Met | Val | Phe | Met |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Leu | Pro | Gln | Leu | Ala | Thr | Arg | Val | Asp | Phe | Ile | Ser | Val | Gly | Thr | Asn |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Asp | Leu | Thr | Gln | Tyr | Ile | Leu | Ala | Val | Asp | Arg | Asn | Asn | Thr | Arg | Val |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Ala | Ser | Ile | Tyr | Asp | Ser | Leu | His | Pro | Ala | Met | Leu | Arg | Ala | Leu | Ala |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Met | Ile | Ala | Arg | Glu | Ala | Glu | Gln | His | Asn | Ile | Asp | Leu | Arg | Leu | Cys |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Gly | Glu | Met | Ala | Gly | Asp | Pro | Met | Cys | Val | Ala | Ile | Leu | Ile | Gly | Leu |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Gly | Phe | Arg | His | Leu | Ser | Met | Asn | Gly | Arg | Ser | Val | Ala | Arg | Val | Lys |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Tyr | Leu | Leu | Arg | His | Ile | Glu | Gln | Asp | Glu | Ala | Arg | Glu | Leu | Ala | Ala |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Arg | Ser | Leu | Glu | Ala | Gln | Leu | Ala | Ala | Glu | Val | Arg | His | Gln | Val | Ala |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Ala | Phe | Met | Glu | Arg | Arg | Gly | Met | Gly | Gly | Leu | Ile | Arg | Gly | Gly | Arg |
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 <212> PRT
 <213> Enterobacter cloacae

<400> 7792

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20      25      30
Val Ser Leu Ala Val Ile Leu Ser Ala Thr Gly Leu Tyr Gly Trp Asp
35      40      45
Ser Trp Gln Gln Arg Gln Arg Leu Trp Gln Thr Ala Cys Gln Val Arg
50      55      60
Asp Tyr Leu Val Phe Leu Arg Asn Asp Ala Asn Arg His Asn Ser Glu
65      70      75      80
His Arg Ile Ala Leu Tyr Asn Asp Gly Glu Lys Asn Cys Leu Thr Ser
85      90      95
Ser Ala Val Thr Gly Cys Asp Ser Gly Gly Pro Phe Val Met Lys Pro
100     105     110
Met Trp Pro Gly Val Thr Ile Ser Asp Ile Thr Pro Ala Leu Gly Phe
115     120     125
Tyr Gly Leu Arg Asp Thr Ala Trp Ala Gly His Ile Arg Val Gln Ser
130     135     140
Arg Ala Gly Gly Trp Trp Val Ile Val Ser Asn Gly Gly Arg Ile Arg
145     150     155     160
Leu Cys Asn Ala Ala Gly Glu Gly Ala Cys Gln
165     170
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<210> 7793
 <211> 112
 <212> PRT
 <213> Enterobacter cloacae

<400> 7793

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Met Val Glu Val Leu Leu Ala Met Met Leu Leu Val Val Val Thr
20      25      30
Ala Leu Ser Gly Tyr His Arg Ala Leu Ala Ala Arg Tyr Ala Ala Leu
35      40      45
Ser Gln Tyr Arg Gln Leu Trp His His Ala Trp Asn Gln Ser Gln Ile
50      55      60
Ser Thr Leu Thr Leu Pro Pro Gly Trp Gln Val Ser Arg Gly Gln Thr
65      70      75      80
Thr Gln Ser Gly Cys Val Ser Ile Thr Val Thr Leu Ile Ser Pro Met
85      90      95
Gly Arg Gln Gly Ala Leu Thr Arg Leu His Cys Pro Val Ser Arg
100     105     110
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<210> 7794
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 <212> PRT
 <213> Enterobacter cloacae

<400> 7794

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Ser Gly Ala Phe Met Leu Arg Val Tyr His Ser Asn Arg Leu Asp Val
1      5      10      15
Leu Glu Ala Leu Met Glu Tyr Ile Val Glu Gln Glu Arg Leu Asp Asp
```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | 25 | | | | 30 | | | | |
| Pro | Phe | Glu | Pro | Glu | Met | Val | Leu | Val | Gln | Ser | Thr | Gly | Met | Ala | Gln |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Leu | Gln | Met | Ser | Leu | Ser | Gln | Lys | Phe | Gly | Ile | Ala | Ala | Asn | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Phe | Pro | Leu | Pro | Ala | Ser | Phe | Ile | Trp | Glu | Met | Phe | Val | Arg | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Pro | Asp | Ile | Pro | Glu | Gln | Ser | Ala | Phe | Asn | Lys | Gln | Ser | Met | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Trp | Lys | Leu | Met | Thr | Leu | Leu | Pro | Asp | Met | Leu | Ala | Arg | Asp | Glu | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Met | Leu | Arg | His | Tyr | Leu | Asn | Asp | Asp | Thr | Asp | Lys | Arg | Lys | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Gln | Leu | Ala | Ser | Arg | Thr | Ala | Asp | Leu | Tyr | Asp | Gln | Tyr | Leu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Arg | Ala | Asp | Trp | Leu | Ile | Arg | Trp | Glu | Ala | Gly | Glu | Leu | Val | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Leu | Pro | Glu | Ala | Gln | Ile | Trp | Gln | Ala | Pro | Leu | Trp | Lys | Ala | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Glu | His | Thr | Gly | Lys | Leu | Gly | Gln | Pro | Lys | Trp | His | Arg | Ala | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Tyr | Asp | Arg | Phe | Ile | Ser | Ile | Leu | Glu | Asn | Ser | Ala | Glu | Arg | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Arg | Leu | Pro | Ser | Arg | Val | Phe | Ile | Cys | Gly | Ile | Ser | Ala | Leu | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Val | Tyr | Leu | Asn | Ala | Leu | Lys | Ala | Leu | Gly | Lys | His | Thr | Asp | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Ile | Leu | Phe | Thr | Asn | Pro | Cys | Arg | His | Tyr | Trp | Gly | Asp | Ile | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Pro | Arg | Trp | Leu | Ser | Arg | Leu | Val | Thr | Arg | Gln | Arg | Lys | Arg | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Glu | Glu | Arg | Ala | Val | Pro | Leu | Phe | Lys | Asp | Ser | Glu | Asn | Ala | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gln | Leu | Phe | Asp | Glu | Glu | Gly | Ile | Gln | Asn | Leu | Pro | Asn | Pro | Leu | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Ser | Trp | Gly | Lys | Leu | Gly | Arg | Asp | Tyr | Ile | Tyr | Leu | Leu | Ser | Asp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Thr | Ser | Ser | Gly | Glu | Gly | Asp | Val | Asp | Ala | Phe | Ala | Asp | Ile | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Pro | Asp | Ser | Leu | Leu | His | Asn | Ile | Gln | Leu | Asp | Ile | Leu | Asp | Leu | Glu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Arg | Ala | Val | Ala | Gly | Ile | Thr | Ala | Glu | Glu | Phe | Ala | Arg | Ser | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Lys | Arg | Lys | Leu | Asp | Pro | Asp | Asp | Arg | Ser | Ile | Ala | Ile | His | Val |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Cys | His | Ser | Pro | Gln | Arg | Glu | Val | Glu | Ile | Leu | His | Asp | Arg | Leu | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Met | Leu | Gln | Asp | Asp | Pro | Thr | Leu | Thr | Pro | Arg | Asp | Ile | Val | Val |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Met | Val | Ala | Asp | Ile | Asp | Ser | Tyr | Ser | Pro | Phe | Ile | Gln | Ala | Val | Phe |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Gly | Ser | Ala | Thr | Gly | Asp | Arg | Tyr | Leu | Pro | Tyr | Ala | Ile | Ser | Asp | Arg |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Arg | Ala | Arg | Gln | Ser | His | Pro | Ala | Leu | Gln | Ala | Phe | Ile | Ser | Leu | Leu |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Ser | Leu | Pro | Asp | Ser | Arg | Phe | Ile | Ser | Glu | Asp | Val | Leu | Ala | Leu | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asp | Val | Pro | Val | Leu | Ala | Ala | Arg | Phe | Asn | Ile | Asn | Glu | Glu | Gly | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Arg | Tyr | Leu | Arg | Gln | Trp | Val | Asn | Glu | Ser | Gly | Val | Arg | Trp | Gly | Ile |
| | | | 500 | | | | | 505 | | | | | 510 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Asp | Asp | Asn | Val | Gln | Glu | Phe | Glu | Leu | Pro | Ala | Thr | Gly | Gln | His |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Thr | Trp | Gln | Phe | Gly | Leu | Thr | Arg | Met | Leu | Leu | Gly | Tyr | Ala | Met | Glu |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Ser | Ile | His | Gly | Glu | Trp | Asn | Asp | Val | Leu | Pro | Tyr | Asp | Glu | Ser | Ser |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Gly | Leu | Ile | Ala | Glu | Leu | Val | Gly | His | Leu | Ala | Thr | Leu | Leu | Met | Gln |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Leu | Asn | Arg | Trp | Arg | Arg | Ala | Leu | Met | Gln | Pro | Arg | Leu | Leu | Glu | Glu |
| | | 580 | | | | | | 585 | | | | | 590 | | |
| Trp | Leu | Pro | Val | Cys | Arg | Glu | Met | Leu | Asn | Asp | Phe | Phe | Leu | Pro | Asp |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Ser | Glu | Thr | Glu | Ala | Ala | Met | Ala | Leu | Ile | Glu | Lys | Gln | Trp | Gln | Ala |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ile | Val | Asp | Glu | Gly | Val | Asn | Ser | His | Tyr | His | Glu | Ala | Val | Pro | Leu |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Ser | Leu | Leu | Arg | Asp | Glu | Leu | Thr | Gln | Arg | Leu | Asp | Gln | Glu | Arg | Ile |
| | | | 645 | | | | | | 650 | | | | | 655 | |
| Ser | Gln | Arg | Phe | Leu | Ala | Gly | Pro | Val | Asn | Ile | Cys | Thr | Leu | Met | Pro |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Met | Arg | Ser | Ile | Pro | Phe | Lys | Val | Val | Cys | Leu | Leu | Gly | Met | Asn | Asp |
| | | 675 | | | | | 680 | | | | | | 685 | | |
| Gly | Ile | Tyr | Pro | Arg | Ala | Leu | Pro | Pro | Leu | Gly | Phe | Asp | Leu | Met | Ser |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Ala | Gln | Pro | Lys | Arg | Gly | Asp | Arg | Ser | Arg | Arg | Asp | Asp | Asp | Arg | Tyr |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Leu | Phe | Leu | Glu | Ala | Leu | Met | Ser | Ala | Gln | Ser | Arg | Leu | Tyr | Ile | Ser |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Tyr | Ile | Gly | Arg | Ser | Ile | Gln | Asp | Asn | Ser | Glu | Arg | Phe | Pro | Ser | Val |
| | | 740 | | | | | 745 | | | | | | 750 | | |
| Leu | Val | Gln | Glu | Leu | Val | Asp | Tyr | Ile | Gly | Gln | Ser | His | Tyr | Leu | Pro |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Gly | Asp | Glu | Ala | Cys | Asn | Cys | Asp | Glu | Ser | Glu | Arg | Arg | Val | Ile | Ala |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| His | Ile | Thr | Cys | His | His | Ser | Arg | Met | Pro | Phe | Asp | Pro | Val | Asn | Tyr |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Val | Pro | Asp | Glu | Leu | Gln | Ser | Tyr | Ala | Arg | Glu | Trp | Leu | Pro | Ala | Ala |
| | | | 805 | | | | | | 810 | | | | | 815 | |
| Lys | Lys | Ala | Gly | Thr | Pro | Gln | Thr | Asp | Phe | Ile | Gln | Ala | Leu | Glu | Pro |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Arg | Ala | Ile | Asp | Thr | Leu | Thr | Phe | Glu | Gln | Leu | Gln | Arg | Phe | Trp | Ala |
| | | 835 | | | | | 840 | | | | | 845 | | | |
| His | Pro | Val | Arg | Ala | Phe | Phe | Gln | Gln | Arg | Leu | Gln | Val | Asn | Phe | Arg |
| | 850 | | | | | 855 | | | | | 860 | | | | |
| Ser | Glu | Glu | Ser | Glu | Ile | Pro | Asp | Ala | Glu | Pro | Phe | Ile | Leu | Asp | Gly |
| 865 | | | | | 870 | | | | | 875 | | | | | 880 |
| Leu | Glu | Arg | Phe | Lys | Leu | Asn | Ser | Gln | Leu | Leu | Asn | Ala | Leu | Val | Asp |
| | | | | 885 | | | | | 890 | | | | | 895 | |
| Glu | Glu | Asp | Ala | Ser | Lys | Leu | Phe | Arg | Arg | Tyr | Arg | Ala | Ser | Gly | Leu |
| | | | 900 | | | | | 905 | | | | | 910 | | |
| Leu | Pro | Tyr | Gly | Ala | Phe | Gly | Glu | Ile | Val | Trp | Asp | Ala | Gln | Cys | Glu |
| | | 915 | | | | | 920 | | | | | 925 | | | |
| Glu | Met | Arg | Ala | Leu | Ala | Asp | Arg | Val | Ile | Ala | Cys | Arg | Gln | Pro | Ala |
| | 930 | | | | | 935 | | | | | 940 | | | | |
| Ser | Ser | Ile | Glu | Ile | Asp | Leu | Asp | Cys | Asn | Gly | Met | His | Leu | Ser | Gly |
| 945 | | | | | 950 | | | | | 955 | | | | | 960 |
| Trp | Leu | Thr | His | Val | Gln | Ser | Asp | Gly | Leu | Leu | Arg | Trp | Arg | Pro | Ser |
| | | | 965 | | | | | | 970 | | | | | 975 | |
| Met | Leu | Ser | Val | Ser | His | Gly | Leu | Gln | Leu | Trp | Leu | Glu | His | Leu | Val |
| | | | 980 | | | | | 985 | | | | | 990 | | |
| Tyr | Ser | Ala | Ser | Gly | His | Glu | Gly | Glu | Ser | Arg | Leu | Phe | Val | Arg | Lys |

| | | | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|--|
| 995 | | | | | 1000 | | | | | 1005 | | | | | | |
| Asp | Gly | Glu | Trp | Arg | Phe | Pro | Arg | Met | Glu | Pro | Glu | Gln | Ala | Leu | Met | |
| 1010 | | | | | 1015 | | | | | 1020 | | | | | | |
| Tyr | Leu | Ser | Leu | Tyr | Ile | Glu | Gly | Tyr | Arg | Gln | Gly | Met | Asn | Lys | Pro | |
| 1025 | | | | | 1030 | | | | | 1035 | | | | | 1040 | |
| Leu | Leu | Leu | Leu | Pro | Glu | Ser | Gly | Gly | Ala | Trp | Ile | Lys | Ala | Cys | Tyr | |
| 1045 | | | | | 1050 | | | | | 1055 | | | | | | |
| Asp | Ala | Gln | Asn | Asp | Ala | Met | Leu | Thr | Asp | Glu | Ala | Ser | Leu | Gln | Lys | |
| 1060 | | | | | 1065 | | | | | 1070 | | | | | | |
| Ala | Arg | Ser | Lys | Phe | Leu | Gln | Ala | Tyr | Glu | Gly | Asn | Met | Met | Val | Arg | |
| 1075 | | | | | 1080 | | | | | 1085 | | | | | | |
| Gly | Glu | Gly | Asp | Asp | Val | Trp | Tyr | Gln | Arg | Leu | Trp | Arg | Thr | Leu | Glu | |
| 1090 | | | | | 1095 | | | | | 1100 | | | | | | |
| Pro | Glu | Tyr | Phe | Asp | Ile | Ile | Thr | Gln | Glu | Ala | Gln | Arg | Tyr | Leu | Leu | |
| 1105 | | | | | 1110 | | | | | 1115 | | | | | 1120 | |
| Pro | Leu | Tyr | Lys | Phe | Asn | Gln | Ser | | | | | | | | | |
| 1125 | | | | | | | | | | | | | | | | |

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 <212> PRT
 <213> Enterobacter cloacae

<400> 7795

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Gln | Gly | Glu | Arg | Leu | Ile | Glu | Ala | Ser | Ala | Gly | Thr | Gly | Lys | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Thr | Ile | Ala | Ala | Leu | Tyr | Leu | Arg | Leu | Leu | Leu | Gly | Leu | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Ala | Ala | Phe | Ser | Arg | Pro | Leu | Ser | Val | Glu | Glu | Leu | Leu | Val | Val |
| | | 50 | | | | 55 | | | | 60 | | | | | |
| Thr | Phe | Thr | Glu | Ala | Ala | Thr | Ala | Glu | Leu | Arg | Gly | Arg | Ile | Arg | Ser |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asn | Ile | His | Glu | Leu | Arg | Ile | Ala | Cys | Leu | Arg | Gln | Thr | Thr | Asp | Asn |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Leu | Tyr | Ala | Ser | Leu | Leu | Asp | Glu | Ile | Ala | Asp | Lys | Gln | Gln | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Gln | Trp | Leu | Leu | Leu | Ala | Glu | Arg | Gln | Met | Asp | Glu | Ala | Ser | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Thr | Ile | His | Gly | Phe | Cys | Gln | Arg | Met | Leu | Ser | Leu | Asn | Ala | Phe |
| | | 130 | | | 135 | | | | | 140 | | | | | |
| Glu | Ser | Gly | Met | Leu | Phe | Glu | Gln | Gln | Leu | Ile | Glu | Asp | Glu | Ser | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Leu | Arg | Tyr | Gln | Ala | Cys | Ala | Asp | Phe | Trp | Arg | Arg | His | Cys | Tyr | Pro |
| | | | 165 | | | | | 170 | | | | | 175 | | |
| Leu | Gln | Arg | Asp | Ile | Ala | Glu | Ala | Val | His | Ala | Leu | Trp | Lys | Gly | Pro |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Glu | Glu | Leu | Leu | Arg | Ala | Ile | Asp | Arg | Tyr | Leu | Gln | Gly | Glu | Ala | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Ile | Lys | Ser | Pro | Pro | Pro | Ala | Asp | Glu | Thr | Leu | Ala | Ser | Arg | His |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Glu | Lys | Ile | Val | Ala | Lys | Ile | Ala | Ala | Leu | Lys | Gln | Lys | Trp | Asn | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Ser | Val | Gly | Glu | Ile | Asp | Ala | Ile | Ile | Glu | Asn | Ser | Gly | Ile | Asp | Arg |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Arg | Lys | Phe | Asn | Arg | Gly | Asn | Gln | Gly | Lys | Trp | Ile | Glu | Lys | Ile | Ser |
| | | 260 | | | | | 265 | | | | | 270 | | | |
| Ala | Trp | Ala | Gln | Glu | Glu | Thr | Arg | Gly | Tyr | Gln | Leu | Pro | Asp | Ala | Leu |
| | | 275 | | | | 280 | | | | | 285 | | | | |
| Glu | Lys | Phe | Ser | Gln | Arg | Phe | Leu | Thr | Glu | Arg | Thr | Lys | Ala | Asp | Gly |

| | | |
|---|---|-----------------------------|
| 290 | 295 | 300 |
| Ile Val Pro Glu His | Pro Leu Phe Val Ala | Ile Glu Ala Leu Leu Ala |
| 305 | 310 | 315 |
| Glu Pro Leu Thr | Leu Asn Asp Leu Met | Ile Thr Arg Ala Met Thr Glu |
| | 325 | 330 |
| Ile Arg Gln Ala Val | Ala Arg Glu Lys Arg Arg Arg Gly Glu Leu Gly | 335 |
| | 340 | 345 |
| Phe Asp Asp Met Leu Ser Arg | Leu Asp Glu Ala Leu Ser Ser Glu Asn | 350 |
| | 355 | 360 |
| Gly Glu Ala Leu Ala Ser | Ala Ile Arg Thr Arg Phe Pro Val Ala Met | 365 |
| | 370 | 375 |
| Ile Asp Glu Phe Gln Asp Thr Asp | Pro Gln Gln Tyr Arg Ile Phe Arg | 380 |
| 385 | 390 | 395 |
| Arg Ile Trp Arg Gln Gln Pro Asp Thr | Ala Leu Leu Leu Ile Gly Asp | 400 |
| | 405 | 410 |
| Pro Lys Gln Ala Ile Tyr Ala Phe Arg | Gly Ala Asp Ile Phe Thr Tyr | 415 |
| | 420 | 425 |
| Met Lys Ala Arg Ser Glu Val Val Ala His Tyr Thr | Leu Asp Thr Asn | 430 |
| | 435 | 440 |
| Trp Arg Ser Ala Pro Gly Met Val Glu Ser Val | Asn Ala Leu Phe Ser | 445 |
| | 450 | 455 |
| Arg Met Glu Thr Ala Phe Met Phe Lys Glu Ile Pro Phe Leu Pro Val | | 460 |
| 465 | 470 | 475 |
| Lys Ser Ala Pro Lys Asn Ala Ser Leu Arg Phe Glu Val Ser Gly Ala | | 480 |
| | 485 | 490 |
| Glu Gln Pro Ala Met Thr Phe Trp Leu Leu Glu Glu Glu Gly Tyr Gly | | 495 |
| | 500 | 505 |
| Val Ala Asp Tyr Gln Ala Ala Met Ala Gln His Cys Ala Ala Gln Ile | | 510 |
| | 515 | 520 |
| Arg Asp Trp Leu Ser Ala Gly Asn Arg Gly Glu Ala Leu Leu Trp Lys | | 525 |
| | 530 | 535 |
| Gly Glu Gln Ala Asn Pro Val Lys Ala Ser Asp Ile Thr Val Leu Val | | 540 |
| 545 | 550 | 555 |
| Arg Ser Arg Gln Glu Ala Ala Leu Ile Arg Asp Ala Leu Thr Leu Leu | | 560 |
| | 565 | 570 |
| Asp Ile Pro Ser Val Tyr Leu Ser Asn Arg Asp Ser Val Phe Asp Thr | | 575 |
| | 580 | 585 |
| Leu Glu Ala Gln Glu Met Leu Trp Leu Leu Gln Ala Val Leu Ala Pro | | 590 |
| | 595 | 600 |
| Glu Arg Glu Asn Thr Leu Arg Ser Ala Leu Ala Ser Ser Met Leu Gly | | 605 |
| | 610 | 615 |
| Leu Asn Ala Arg Asp Ile Asp Glu Leu Asn His Asp Glu Asn Ala Trp | | 620 |
| 625 | 630 | 635 |
| Asp Ala Val Val Glu Glu Phe Val His Tyr Arg Glu Arg Trp Gln Lys | | 640 |
| | 645 | 650 |
| Arg Gly Val Met Ala Met Leu Arg Glu Leu Met Thr Arg Arg Gln Ile | | 655 |
| | 660 | 665 |
| Ala Glu Asn Met Leu Ala Ser Ser Gly Gly Glu Arg Arg Leu Thr Asp | | 670 |
| | 675 | 680 |
| Ile Leu His Ile Ser Glu Leu Leu Gln Glu Ala Gly Thr Gln Leu Glu | | 685 |
| | 690 | 695 |
| Ser Glu His Ala Leu Val Arg Trp Leu Ala Gln Gln Ile Ala Asp Pro | | 700 |
| 705 | 710 | 715 |
| Asn Ser Asn Ala Ser Ser Gln Gln Met Arg Leu Glu Ser Asp Lys His | | 720 |
| | 725 | 730 |
| Leu Val Gln Ile Val Thr Ile His Lys Ser Lys Gly Leu Glu Tyr Pro | | 735 |
| | 740 | 745 |
| Leu Val Trp Leu Pro Phe Ile Ala Asn Tyr Arg Val Gln Asp Gln Ala | | 750 |
| | 755 | 760 |
| Tyr Tyr His Asp Arg Glu Thr Phe Asp Ala Val Leu Asp Leu Ser Lys | | 765 |
| 770 | 775 | 780 |

Ala Glu Thr Ser Val Glu Leu Ala Glu Ala Glu Arg Leu Ala Glu Asp
 785 790 795 800
 Leu Arg Leu Leu Tyr Val Ala Leu Thr Arg Ser Val Trp His Cys Ser
 805 810 815
 Leu Gly Val Ala Pro Val Phe Arg Arg Gly Glu Lys Thr Gly Glu
 820 825 830
 Ser Asp Phe His Leu Ser Ala Leu Gly Arg Leu Ile Gln His Gly Glu
 835 840 845
 Pro Lys Asp Ala Ala Gly Leu Arg Leu Cys Ile Glu Ser Leu Cys Gly
 850 855 860
 Asp Asp Ile Ala Leu His Ile Pro Ser Leu Pro Asp Asn Ser Arg Trp
 865 870 875 880
 Glu Met Ala Gln Glu Pro Val Thr Asp Leu Asn Ala Arg Gln Ile Thr
 885 890 895
 Arg Val Leu Ala Asp Asp Trp Arg Val Thr Ser Tyr Ser Gly Leu Gln
 900 905 910
 Gln His Gly Gln Ser Ile Ala Gln Asp Leu Met Pro Lys Leu Asp Val
 915 920 925
 Asp Ala Ala Gly Val Gly Asp Val Pro Val Glu Pro Thr Leu Thr Pro
 930 935 940
 His Gln Phe Pro Arg Gly Ala Ser Pro Gly Thr Phe Leu His Ser Leu
 945 950 955 960
 Phe Glu Glu Leu Asp Phe Thr Gln Pro Val Ser Glu Glu Trp Val Leu
 965 970 975
 Lys Met Leu Gln Ser Gly Gly Tyr Asp Ala His Trp Gln Pro Val Leu
 980 985 990
 Thr Asp Trp Ile Asn Ala Ile Leu Gln Ala Pro Leu Thr Ala Gln Gly
 995 1000 1005
 Phe Ser Leu Arg Gln Leu Thr Ala Lys Asn Lys Gln Val Glu Met Glu
 1010 1015 1020
 Phe Tyr Leu Pro Val Ala Gly Pro Leu Lys Ala Asp Ala Leu Asp Ala
 1025 1030 1035 1040
 Leu Ile Arg Gln Tyr Asp Pro Leu Ser Ala Gly Cys Pro Pro Leu Asn
 1045 1050 1055
 Phe Arg Gln Val Gln Gly Met Leu Lys Gly Phe Ile Asp Leu Val Phe
 1060 1065 1070
 Arg His Glu Gly Arg Tyr Tyr Leu Leu Asp Tyr Lys Ser Asn Trp Leu
 1075 1080 1085
 Gly Glu Asn Ser Ala Ala Tyr Thr Gln Gln Ala Met Ala Ala Met
 1090 1095 1100
 Gln Met His Arg Tyr Asp Leu Gln Tyr Gln Leu Tyr Thr Leu Ala Leu
 1105 1110 1115 1120
 His Arg Tyr Leu Arg His Arg Ile Ala Asp Tyr Arg Tyr Asp Asp His
 1125 1130 1135
 Phe Gly Gly Val Ile Tyr Leu Phe Leu Arg Gly Val Asp Ala Ala Asp
 1140 1145 1150
 Pro Arg Ser Gly Ile Phe Ser Thr Arg Pro Asp Ala Glu Leu Ile Asn
 1155 1160 1165
 Lys Met Asp Asn Leu Phe Ala Ala Asn Thr Glu Glu Met Ala
 1170 1175 1180

<210> 7796

<211> 451

<212> PRT

<213> Enterobacter cloacae

<400> 7796

Thr Phe Thr Lys Gly Cys Ile Met Val Lys Glu Arg Arg Thr Glu Leu
 1 5 10 15
 Val Gln Gly Phe Arg His Ser Val Pro Tyr Ile Asn Thr His Arg Gly
 20 25 30

Lys Thr Phe Val Ile Met Leu Gly Gly Glu Ala Ile Glu His Glu Asn
 35 40 45
 Phe Ser Ser Ile Val Asn Asp Ile Gly Leu Leu His Ser Leu Gly Ile
 50 55 60
 Arg Leu Val Val Val Tyr Gly Ala Arg Pro Gln Ile Glu Ala Asn Leu
 65 70 75 80
 Ala Ala His His His Glu Pro Ile Tyr His Lys His Thr Arg Val Thr
 85 90 95
 Asp Ala Lys Thr Leu Glu Leu Val Lys Gln Ala Ala Gly Leu Leu Gln
 100 105 110
 Leu Asp Ile Thr Ala Arg Leu Ser Met Ser Leu Asn Asn Thr Pro Leu
 115 120 125
 Gln Gly Ala His Ile Asn Val Ser Gly Asn Phe Ile Ile Ala Gln
 130 135 140
 Pro Leu Gly Val Asp Asp Gly Val Asp Tyr Cys His Ser Gly Arg Ile
 145 150 155 160
 Arg Arg Ile Asp Glu Asp Ala Ile His Arg Gln Leu Asp Asn Gly Ala
 165 170 175
 Ile Val Leu Met Gly Pro Val Ala Val Ser Val Thr Gly Glu Ser Phe
 180 185 190
 Asn Leu Thr Ser Glu Glu Ile Ala Thr Gln Leu Ala Ile Lys Leu Lys
 195 200 205
 Ala Glu Lys Met Ile Gly Phe Cys Ser Ser Gln Gly Val Val Asn Asp
 210 215 220
 Glu Gly Val Ile Val Pro Glu Leu Phe Pro Asn Glu Ala Gln Ala Arg
 225 230 235 240
 Val Glu Ala Leu Glu Ala Glu Gly Asp Tyr Tyr Ser Gly Thr Val Arg
 245 250 255
 Phe Leu Arg Gly Ala Val Lys Ala Cys Arg Ser Gly Val Arg Arg Ser
 260 265 270
 His Leu Ile Ser Tyr Gln Glu Asp Gly Ala Leu Leu Gln Glu Leu Phe
 275 280 285
 Ser Arg Asp Gly Ile Gly Thr Gln Ile Val Met Glu Ser Ala Glu Gln
 290 295 300
 Ile Arg Arg Ala Thr Ile Asn Asp Ile Gly Gly Ile Leu Glu Leu Ile
 305 310 315 320
 Arg Pro Leu Glu Gln Gly Ile Leu Val Arg Arg Ser Arg Glu Gln
 325 330 335
 Leu Glu Met Glu Ile Asp Lys Phe Thr Ile Ile Gln Arg Asp Asn Leu
 340 345 350
 Thr Ile Ala Cys Ala Ala Leu Tyr Pro Phe Pro Glu Glu Gln Ile Gly
 355 360 365
 Glu Met Ala Cys Val Ala Val His Pro Asp Tyr Arg Ser Ser Ser Arg
 370 375 380
 Gly Glu Leu Leu Leu Glu Arg Val Ala Ala Gln Ala Arg Gln Met Gly
 385 390 395 400
 Leu Ser Lys Leu Phe Val Leu Thr Thr Arg Ser Ile His Trp Phe Gln
 405 410 415
 Glu Arg Gly Phe Thr Pro Val Asp Ile Asp Ser Leu Pro Glu Ser Lys
 420 425 430
 Lys Glu Met Tyr Asn Tyr Gln Arg Arg Ser Lys Val Leu Met Ala Asp
 435 440 445
 Leu Gly
 450

<210> 7797

<211> 242

<212> PRT

<213> Enterobacter cloacae

<220>

<221>UNSURE

<222>(18)

<400> 7797

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Ser Ser Asp Gly Asp Leu Arg Tyr Leu Ser Phe Ile Pro Leu Thr Glu
1      5      10      15
Leu Xaa Met Gln Tyr Pro Ile Asn Glu Met Phe Gln Thr Leu Gln Gly
20      25      30
Glu Gly Tyr Phe Thr Gly Val Pro Ala Ile Phe Ile Arg Leu Gln Gly
35      40      45
Cys Pro Val Gly Cys Ala Trp Cys Asp Thr Lys His Thr Trp Asp Lys
50      55      60
Leu Ala Asp Arg Glu Val Ser Leu Phe Ser Ile Leu Ala Lys Thr Lys
65      70      75      80
Glu Ser Asp Lys Trp Gly Ala Gly Ser Ala Glu Asp Leu Leu Ala Ile
85      90      95
Ile Gly Arg Gln Gly Trp Thr Ala Arg His Val Val Ile Thr Gly Gly
100     105     110
Glu Pro Cys Ile His Asp Leu Met Pro Leu Thr Glu Leu Leu Glu Lys
115     120     125
Asn Gly Tyr Ser Cys Gln Ile Glu Thr Ser Gly Thr His Glu Val Arg
130     135     140
Cys Ser His Ser Thr Trp Val Thr Val Ser Pro Lys Val Asn Met Arg
145     150     155     160
Gly Gly Tyr Asp Val Leu Ser Gln Ala Leu Glu Arg Ala Asp Glu Ile
165     170     175
Lys His Pro Val Gly Arg Val Arg Asp Ile Glu Ala Leu Asp Glu Leu
180     185     190
Leu Ala Thr Leu Thr Asp Glu Lys Gln Arg Val Ile Ala Leu Gln Pro
195     200     205
Ile Ser Gln Lys Asp Asp Ala Thr Arg Leu Cys Ile Glu Thr Cys Ile
210     215     220
Ala Arg Asn Trp Arg Leu Ser Met Gln Thr His Lys Tyr Leu Asn Ile
225     230     235     240
Ala

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<210> 7798

<211> 584

<212> PRT

<213> Enterobacter cloacae

<400> 7798

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Ala Ala Arg Arg Ala Pro Leu Ser Ala Arg Cys Leu Leu Met Ser Glu
1      5      10      15
Lys His Pro Gly Pro Leu Val Val Glu Gly Lys Leu Ser Asp Ala Glu
20      25      30
Arg Met Lys Val Glu Ser Asn Tyr Leu Arg Gly Thr Ile Ala Glu Asp
35      40      45
Leu Asn Asp Gly Leu Thr Gly Gly Phe Lys Gly Asp Asn Phe Leu Leu
50      55      60
Ile Arg Phe His Gly Met Tyr Gln Gln Asp Asp Arg Asp Ile Arg Ala
65      70      75      80
Glu Arg Ala Glu Gln Lys Leu Glu Pro Arg His Ala Met Leu Leu Arg
85      90      95
Cys Arg Leu Pro Gly Gly Ile Ile Thr Lys Gln Trp Gln Ala Ile
100     105     110
Asp Lys Phe Ala His Asp Asn Thr Ile Tyr Gly Ser Ile Arg Leu Thr
115     120     125
Asn Arg Gln Thr Phe Gln Phe His Gly Ile Leu Lys Lys Asn Val Lys
130     135     140

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Pro Val His Gln Met Leu His Ser Val Gly Leu Asp Ala Leu Ala Thr
 145 150 155 160
 Ala Asn Asp Met Asn Arg Asn Val Leu Cys Thr Ser Asn Pro Tyr Glu
 165 170 175
 Ser Glu Leu His Ala Glu Ala Tyr Glu Trp Ala Lys Lys Ile Ser Glu
 180 185 190
 His Leu Leu Pro Arg Thr Arg Ala Tyr Ala Glu Ile Trp Leu Asp Gln
 195 200 205
 Glu Lys Val Ala Thr Thr Asp Glu Glu Pro Ile Leu Gly Gln Thr Tyr
 210 215 220
 Leu Pro Arg Lys Phe Lys Thr Thr Val Val Ile Pro Pro Gln Asn Asp
 225 230 235 240
 Ile Asp Leu His Ala Asn Asp Met Asn Phe Val Ala Ile Ala Glu Asn
 245 250 255
 Gly Lys Leu Val Gly Phe Asn Leu Leu Val Gly Gly Gly Leu Ser Ile
 260 265 270
 Glu His Gly Asn Lys Lys Thr Tyr Ala Arg Thr Ala Ser Glu Phe Gly
 275 280 285
 Phe Leu Pro Leu Glu His Thr Leu Ala Val Ala Glu Ala Val Val Thr
 290 295 300
 Thr Gln Arg Asp Trp Gly Asn Arg Thr Asp Arg Lys Asn Ala Lys Thr
 305 310 315 320
 Lys Tyr Thr Leu Glu Arg Val Gly Val Glu Thr Phe Lys Glu Glu Val
 325 330 335
 Glu Arg Arg Ala Gly Ile Lys Phe Glu Pro Ile Arg Pro Tyr Glu Phe
 340 345 350
 Thr Gly Arg Gly Asp Arg Ile Gly Trp Val Lys Gly Ile Asp Asn Lys
 355 360 365
 Trp His Leu Thr Leu Phe Ile Glu Asn Gly Arg Ile Leu Asp Tyr Pro
 370 375 380
 Gly Arg Pro Leu Lys Thr Gly Leu Leu Glu Ile Ala Lys Ile His Lys
 385 390 395 400
 Gly Glu Phe Arg Ile Thr Ala Asn Gln Asn Leu Ile Val Ala Ser Val
 405 410 415
 Pro Glu Ser Glu Lys Ala Arg Ile Glu Glu Leu Ala Arg Glu His Gly
 420 425 430
 Leu Met Asn Ala Val Ser Val Gln Arg Glu Asn Ser Met Ala Cys Val
 435 440 445
 Ser Phe Pro Thr Cys Pro Leu Ala Met Ala Glu Ala Glu Arg Phe Leu
 450 455 460
 Pro Ser Phe Thr Asp Lys Val Glu Ala Ile Leu Glu Lys His Gly Ile
 465 470 475 480
 Pro Asp Glu His Ile Val Met Arg Val Thr Gly Cys Pro Asn Gly Cys
 485 490 495
 Gly Arg Ala Met Leu Ala Glu Leu Gly Leu Val Gly Lys Ala Pro Gly
 500 505 510
 Arg Tyr Asn Leu His Leu Gly Gly Asn Arg Ile Gly Thr Arg Ile Pro
 515 520 525
 Arg Met Phe Arg Glu Asn Ile Thr Glu Pro Glu Ile Leu Asp Ser Leu
 530 535 540
 Asp Val Leu Ile Gly Arg Trp Ala Lys Glu Arg Glu Ala Gly Glu Gly
 545 550 555 560
 Phe Gly Asp Phe Thr Val Arg Ala Gly Ile Ile Arg Pro Val Leu Asp
 565 570 575
 Pro Ala Arg Asp Phe Trp Glu
 580

<210> 7799

<211> 250

<212> PRT

<213> Enterobacter cloacae

<400> 7799

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Pro Arg Glu Val Ile Met Ser Val Leu Asp Leu Asn Ala Leu Asn Ala
1      5      10      15
Leu Pro Lys Val Glu Arg Ile Leu Ala Leu Ala Glu Thr Asn Ala Gln
20      25      30
Leu Glu Lys Leu Asp Ala Glu Gly Arg Val Ala Trp Ala Leu Glu Asn
35      40      45
Leu Pro Gly Asp Tyr Val Leu Ser Ser Ser Phe Gly Ile Gln Ala Ala
50      55      60
Val Ser Leu His Leu Val Asn Gln Ile Arg Pro Asp Ile Pro Val Ile
65      70      75      80
Leu Thr Asp Thr Gly Tyr Leu Phe Pro Glu Thr Tyr Gln Phe Ile Asp
85      90      95
Glu Leu Thr Asp Lys Leu Arg Leu Asn Leu Lys Val Tyr Arg Ala Thr
100     105     110
Glu Ser Ala Ala Trp Gln Glu Ala Arg Tyr Gly Lys Leu Trp Glu Gln
115     120     125
Gly Val Glu Gly Ile Glu Lys Tyr Asn Glu Ile Asn Lys Val Glu Pro
130     135     140
Met Asn Arg Ala Leu Lys Glu Leu Asn Ala Gln Thr Trp Phe Ala Gly
145     150     155     160
Leu Arg Arg Glu Gln Ser Gly Ser Arg Ala Thr Leu Pro Val Leu Ala
165     170     175
Val Gln Arg Gly Val Phe Lys Val Leu Pro Ile Ile Asp Trp Asp Asn
180     185     190
Arg Thr Val Tyr Gln Tyr Leu Gln Lys His Gly Leu Lys Tyr His Pro
195     200     205
Leu Trp Asp Gln Gly Tyr Leu Ser Val Gly Asp Thr His Thr Thr Arg
210     215     220
Lys Trp Glu Pro Gly Met Ala Glu Glu Glu Thr Arg Phe Phe Gly Leu
225     230     235     240
Lys Arg Glu Cys Gly Leu His Glu Gly
245     250

```

<210> 7800

<211> 125

<212> PRT

<213> Enterobacter cloacae

<400> 7800

```

Asn Pro Ala Val Glu Ser Ser Gly Lys Leu Trp Asp Asp Asp Ala Val
1      5      10      15
Phe Ser Gly Gly Arg Met Gly Lys Leu Thr Leu Leu Leu Ala Leu
20      25      30
Leu Val Trp Leu Gln Tyr Ser Leu Trp Phe Gly Lys Asn Gly Leu His
35      40      45
Asp Tyr Ser Arg Val Ser Asp Val Ala Ala Gln Gln Ala Thr Asn
50      55      60
Ala Lys Leu Lys Ala Arg Asn Asp Gln Leu Phe Ala Glu Ile Asp Asp
65      70      75      80
Leu Asn Gly Gly Gln Glu Ala Ile Glu Glu Arg Ala Arg Asn Glu Leu
85      90      95
Ser Met Thr Lys Pro Gly Glu Thr Phe Tyr Arg Leu Val Pro Asp Ala
100     105     110
Ser Lys Arg Asn Gln Gly Ser Ala Gln Asn Asn Arg
115     120     125

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<210> 7801

<211> 186

<212> PRT

<213> Enterobacter cloacae

<400> 7801

Tyr Lys Ser Asp Ala Pro Gly Arg Leu Thr Ala Arg Gly Ile Leu Ser
 1 5 10 15
 Tyr Pro Tyr Asp Pro Ser Gly Glu Gly Ile Met Arg Ile Gly His Gly
 20 25 30
 Phe Asp Val His Ala Phe Gly Gly Val Gly Pro Ile Ile Ile Gly Gly
 35 40 45
 Val Arg Ile Pro Tyr Glu Lys Gly Leu Leu Ala His Ser Asp Gly Asp
 50 55 60
 Val Ala Leu His Ala Leu Thr Asp Ala Leu Leu Gly Ala Ala Ala Leu
 65 70 75 80
 Gly Asp Ile Gly Lys Leu Phe Pro Asp Thr Asp Pro Ala Phe Lys Gly
 85 90 95
 Ala Asp Ser Arg Glu Leu Leu Arg Glu Ala Trp Arg Arg Ile Gln Ala
 100 105 110
 Lys Gly Tyr Thr Leu Gly Asn Val Asp Val Thr Ile Ile Ala Gln Ala
 115 120 125
 Pro Lys Met Leu Pro His Ile Pro Gln Met Arg Val Phe Ile Ala Glu
 130 135 140
 Asp Leu Gly Cys His Met Asp Asp Val Asn Val Lys Ala Thr Thr Thr
 145 150 155 160
 Glu Lys Leu Gly Phe Thr Gly Arg Gly Glu Gly Ile Ala Cys Glu Ala
 165 170 175
 Val Ala Leu Leu Val Lys Ala Ala Lys
 180 185

<210> 7802

<211> 281

<212> PRT

<213> Enterobacter cloacae

<400> 7802

Pro Ser Ser Tyr Ala Ser Gly Cys Arg Gln Val Ala Leu Pro Pro Val
 1 5 10 15
 Leu Ser Gly Asn Leu Ser Thr Arg Arg Val Ile Met Arg Ile Leu Leu
 20 25 30
 Ser Asn Asp Asp Gly Ile His Ala Pro Gly Ile Gln Thr Leu Ala Lys
 35 40 45
 His Leu Arg Glu Phe Ala Asp Val Gln Val Val Ala Pro Asp Arg Asn
 50 55 60
 Arg Ser Gly Ala Ser Asn Ser Leu Thr Leu Glu Ser Ser Leu Arg Thr
 65 70 75 80
 Phe Thr Phe Glu Asn Gly Asp Ile Ala Val Gln Met Gly Thr Pro Thr
 85 90 95
 Asp Cys Val Phe Leu Gly Val Asn Ala Leu Met Arg Pro Arg Pro Asp
 100 105 110
 Val Val Val Ser Gly Ile Asn Ala Gly Pro Asn Leu Gly Asp Asp Val
 115 120 125
 Ile Tyr Ser Gly Thr Val Ala Ala Ala Met Glu Gly Arg His Leu Gly
 130 135 140
 Phe Pro Ala Leu Ala Val Ser Leu Asn Gly His Thr His Tyr Asp Thr
 145 150 155 160
 Ala Ala Ala Val Thr Cys Ser Ile Leu Arg Ala Leu Gly Arg Glu Pro
 165 170 175
 Leu Arg Thr Gly Arg Ile Leu Asn Ile Asn Val Pro Asp Leu Pro Leu
 180 185 190
 Asp Glu Ile Lys Gly Ile Arg Val Thr Arg Cys Gly Ser Arg His Pro
 195 200 205
 Ala Asp Gln Val Ile Pro Gln Gln Asp Pro Arg Gly Asn Thr Leu Tyr


```

      210                      215                      220
Trp Ile Gly Pro Pro Gly Asp Lys Cys Asp Ala Gly Pro Asp Thr Asp
225                      230                      235                      240
Phe Ala Ala Val Asp Glu Gly Tyr Val Ser Val Thr Pro Leu His Val
      245                      250                      255
Asp Leu Thr Ala Tyr Ser Ala His Asp Val Val Ser Asp Trp Leu Asp
      260                      265                      270
Arg Val Gly Val Asn Ala Gln Trp
      275                      280

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<210> 7803
 <211> 67
 <212> PRT
 <213> Enterobacter cloacae

<220>
 <221> UNSURE
 <222> (29)

<220>
 <221> UNSURE
 <222> (53)

<220>
 <221> UNSURE
 <222> (67)

```

<400> 7803
Arg Gln Ile Pro Gly Cys Trp Lys Leu Ala Pro Val Gln Gly Ile Arg
1                      5                      10                      15
Pro Arg Ser Trp Pro Thr Leu Cys Thr Met Ser Val Xaa Val Glu Arg
      20                      25                      30
Ile Lys Gly Leu Gln Trp Gln Ala Arg Arg Arg Leu Lys Gln Leu Asp
      35                      40                      45
Leu His Lys Phe Xaa Leu Gln Pro Pro Arg Ala Trp Lys Asp His Ala
      50                      55                      60
Trp Val Xaa
65

```

<210> 7804
 <211> 214
 <212> PRT
 <213> Enterobacter cloacae

<220>
 <221> UNSURE
 <222> (204)

```

<400> 7804
Arg Gly Ser Gly His Leu Trp Pro Ala Arg His His Tyr Gln Lys Arg
1                      5                      10                      15
Ser Gly Arg Asp Leu Ile Val Met Lys Thr Val Leu Asp Asn Leu Lys
      20                      25                      30
Gly Lys Leu Val Val Ser Cys Gln Ala Leu Glu Asn Glu Pro Leu His
      35                      40                      45
Ser Pro Phe Ile Met Ser Arg Met Ala Leu Ala Ala Gln Gly Gly
      50                      55                      60
Ala Ala Ala Ile Arg Ala Asn Ser Val Val Asp Ile Glu Ala Ile Lys
65                      70                      75                      80
Gly Leu Val Ser Leu Pro Val Ile Gly Ile Ile Lys Arg Asp Tyr Pro
      85                      90                      95

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Asp Ser Glu Val Phe Ile Thr Ala Thr Leu Lys Glu Val Asp Glu Leu
 100 105 110
 Met Ala Val Ala Pro Glu Ile Val Ala Leu Asp Ala Thr Ala Arg Lys
 115 120 125
 Arg Pro Gly Gly Val Ser Leu Asp Met Leu Ile Ala Gln Ile Arg Thr
 130 135 140
 Arg Tyr Pro Ser Leu Leu Leu Met Ala Asp Ile Ala Thr Val Gln Glu
 145 150 155 160
 Ala Val Thr Ala Gln Ala Leu Gly Phe Asp Cys Val Gly Thr Thr Leu
 165 170 175
 Tyr Gly Tyr Thr Ala Glu Thr Ala Gly His Ser Leu Pro Glu Asn Asp
 180 185 190
 Cys Ala Phe Leu Lys Glu Leu Arg Ser Ala Val Xaa Ile Pro Gly Asp
 195 200 205
 Cys Arg Lys Val Thr
 210

<210> 7805

<211> 604

<212> PRT

<213> Enterobacter cloacae

<400> 7805

Arg Arg Met Thr Thr Gln Ala Pro Pro Ser Asn Leu Leu Pro Leu Asn
 1 5 10 15
 Pro Glu Gln Leu Ala Arg Leu Gln Ala Ala Thr Ser Asp Phe Ser Pro
 20 25 30
 Thr Gln Leu Ala Trp Val Ser Gly Tyr Phe Trp Gly Met Leu Asn Gln
 35 40 45
 Gln Pro Gly Ala Val Ala Gly Val Pro Pro Thr Ala Val Glu Ile Pro
 50 55 60
 Ala Ile Thr Leu Ile Ser Ala Ser Gln Thr Gly Asn Ala Arg Arg Val
 65 70 75 80
 Ala Glu Ala Leu Arg Asp Asp Leu Leu Ala Ala Lys Leu Asn Val Asn
 85 90 95
 Leu Val Asn Ala Gly Asp Tyr Lys Phe Lys Gln Ile Ala Ser Glu Lys
 100 105 110
 Leu Leu Val Val Val Ala Ser Thr Gln Gly Glu Gly Glu Pro Ala Glu
 115 120 125
 Glu Ala Val Ala Leu His Lys Phe Leu Phe Ser Lys Lys Ala Pro Lys
 130 135 140
 Leu Glu Gly Thr Ala Phe Ala Val Phe Gly Leu Gly Asp Thr Ser Tyr
 145 150 155 160
 Glu Phe Phe Cys Gln Ser Gly Lys Asp Phe Asp Ser Lys Leu Ala Glu
 165 170 175
 Leu Gly Ala Glu Arg Leu Leu Asp Arg Val Asp Ala Asp Val Glu Tyr
 180 185 190
 Gln Ala Ala Ala Glu Trp Arg Ala Arg Ile Val Glu Val Leu Lys
 195 200 205
 Ala Arg Val Pro Lys Glu Thr Pro Ala Gln Ala Ala Val Thr Ala Ala
 210 215 220
 Gly Thr Val Asn Glu Ile His Thr Ser Pro Tyr Thr Lys Glu Ala Pro
 225 230 235 240
 Leu Thr Ala Ser Leu Ser Val Asn Gln Lys Ile Thr Gly Arg Asp Ser
 245 250 255
 Glu Lys Asp Val Arg His Ile Glu Ile Asp Leu Gly Asp Ser Gly Leu
 260 265 270
 Arg Tyr Gln Pro Gly Asp Ala Leu Gly Val Trp Tyr Gln Asn Asp Pro
 275 280 285
 Ala Leu Val Lys Glu Leu Val Glu Leu Leu Trp Leu Lys Gly Thr Glu
 290 295 300

Pro Val Gln Val Glu Gly Lys Thr Leu Pro Leu Ser Glu Ala Leu Gln
 305 310 315 320
 Trp His Phe Glu Leu Thr Val Asn Thr Ala Asn Ile Val Glu Asn Tyr
 325 330 335
 Ala Thr Leu Thr Arg Ser Glu Ser Leu Pro Leu Val Gly Asp Lys
 340 345 350
 Ala Lys Leu Gln Gln Tyr Ala Ala Thr Thr Pro Ile Val Asp Met Val
 355 360 365
 Arg Phe Ser Pro Ala Gln Leu Asp Ala Asp Ala Leu Ile Gly Leu Leu
 370 375 380
 Arg Pro Leu Thr Pro Arg Leu Tyr Ser Ile Ala Ser Ser Gln Ala Glu
 385 390 395 400
 Val Glu Asn Glu Val His Ile Thr Val Gly Val Val Arg Tyr Asp Ile
 405 410 415
 Glu Gly Arg Ala Arg Ala Gly Gly Ala Ser Gly Phe Leu Ala Asp Arg
 420 425 430
 Val Glu Glu Glu Gly Glu Val Arg Val Phe Ile Glu His Asn Asp Asn
 435 440 445
 Phe Arg Leu Pro Ala Asn Pro Glu Thr Pro Val Ile Met Ile Gly Pro
 450 455 460
 Gly Thr Gly Ile Ala Pro Phe Arg Ala Phe Met Gln Gln Arg Ala Ala
 465 470 475 480
 Asp Glu Ala Pro Gly Lys Asn Trp Leu Phe Phe Gly Asn Pro His Phe
 485 490 495
 Thr Glu Asp Phe Leu Tyr Gln Val Glu Trp Gln Arg Tyr Val Lys Glu
 500 505 510
 Gly Val Leu Thr Arg Ile Asp Leu Ala Trp Ser Arg Asp Gln Lys Glu
 515 520 525
 Lys Val Tyr Val Gln Asp Lys Leu Arg Glu Gln Gly Ala Glu Leu Trp
 530 535 540
 Arg Trp Ile Asn Asp Gly Ala His Ile Tyr Val Cys Gly Asp Ala Asn
 545 550 555 560
 Arg Met Ala Lys Asp Val Glu Gln Ala Leu Leu Glu Val Ile Ala Glu
 565 570 575
 Phe Gly Gly Met Asp Ala Glu Thr Ala Asp Glu Phe Leu Ser Glu Leu
 580 585 590
 Arg Val Glu Arg Arg Tyr Gln Arg Asp Val Tyr
 595 600

<210> 7806

<211> 217

<212> PRT

<213> Enterobacter cloacae

<400> 7806

Ala Leu Pro Ala Leu Gly Arg Thr Arg Ser Ala Gly Arg Gln Val Met
 1 5 10 15
 Ala Ala His Asp Glu Asn Val Val Trp His Pro His Pro Val Thr Val
 20 25 30
 Ala Gln Arg Glu Gln Leu His Gly His Arg Gly Val Val Leu Trp Phe
 35 40 45
 Thr Gly Leu Ser Gly Ser Gly Lys Ser Thr Val Ala Gly Ala Leu Glu
 50 55 60
 Glu Ala Leu His Gln Gln Gly Val Ser Thr Tyr Leu Leu Asp Gly Asp
 65 70 75 80
 Asn Val Arg His Gly Leu Cys Ser Asp Leu Gly Phe Ser Asp Glu Asp
 85 90 95
 Arg Lys Glu Asn Ile Arg Arg Val Gly Glu Val Ala Ser Leu Met Ala
 100 105 110
 Asp Ala Gly Leu Val Val Leu Thr Ala Phe Ile Ser Pro His Arg Ala
 115 120 125

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Gln | Met | Val | Arg | Glu | Arg | Val | Gly | Gln | Asn | Arg | Phe | Ile | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Phe | Val | Asp | Thr | Pro | Leu | Ala | Ile | Cys | Glu | Ala | Arg | Asp | Leu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Leu | Tyr | Lys | Lys | Ala | Arg | Ala | Gly | Glu | Leu | Arg | Asn | Phe | Thr | Gly |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ile | Asp | Ser | Val | Tyr | Glu | Ala | Pro | Glu | Ser | Pro | Glu | Ile | His | Leu | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Gln | Gln | Leu | Val | Thr | Asn | Leu | Val | Ser | Gln | Leu | Leu | Asp | Leu | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Arg | Asp | Asp | Ile | Ile | Arg | Ser | | | | | | | | |
| | 210 | | | | | 215 | | | | | | | | | |

<210> 7807

<211> 270

<212> PRT

<213> Enterobacter cloacae

<400> 7807

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Arg | Ala | Lys | Arg | Phe | Ile | Ala | Trp | Phe | Arg | Met | Arg | Leu | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ile | Arg | Ala | Pro | His | Lys | Thr | Ile | Asp | Asn | Gln | Ala | Gln | Asp | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Met | Ala | Ala | Thr | Phe | Ser | Asp | Val | Cys | Ala | Val | Val | Pro | Ala | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Phe | Gly | Arg | Arg | Met | Gln | Thr | Glu | Cys | Pro | Lys | Gln | Tyr | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Gly | Asp | Lys | Thr | Ile | Leu | Glu | His | Ala | Val | Ala | Ala | Leu | Leu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Ser | Arg | Val | Lys | Arg | Val | Val | Ile | Ala | Ile | Ser | Pro | Gly | Asp | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Phe | Ala | Gln | Leu | Pro | Leu | Ala | Asn | His | Pro | Gln | Ile | Thr | Val | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Gly | Gly | Ala | Glu | Arg | Ala | Asp | Ser | Val | Leu | Ala | Gly | Ile | Gln | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Gly | Asn | Ala | Gln | Trp | Val | Leu | Val | His | Asp | Ala | Ala | Arg | Pro | Cys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | His | His | Asp | Asp | Leu | Ser | Arg | Leu | Leu | Ala | Leu | Ser | Glu | Thr | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Val | Gly | Gly | Ile | Leu | Ala | Ala | Pro | Val | Arg | Asp | Thr | Met | Lys | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Glu | Pro | Gly | Lys | Pro | Ala | Ile | Ala | His | Thr | Val | Glu | Arg | Val | Asp |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Leu | Trp | His | Ala | Leu | Thr | Pro | Gln | Phe | Phe | Pro | Arg | Glu | Leu | Leu | His |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Cys | Leu | Thr | Arg | Ala | Leu | Lys | Glu | Gly | Ala | Thr | Ile | Thr | Asp | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Ser | Ala | Leu | Glu | Tyr | Cys | Gly | Phe | His | Pro | Thr | Leu | Val | Glu | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Ala | Asp | Asn | Ile | Lys | Val | Thr | Arg | Pro | Glu | Asp | Leu | Gln | Leu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Phe | Tyr | Leu | Thr | Arg | Thr | Thr | Pro | Gln | Glu | Lys | Ala | | | |
| | | | 260 | | | | | 265 | | | | | 270 | | |

<210> 7808

<211> 91

<212> PRT

<213> Enterobacter cloacae

<400> 7808

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Lys | Glu | Ala | Leu | Ala | Asp | Glu | Asp | Thr | Leu | Pro | Gln | Ser | Glu | Arg |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Ala | Ala | Ala | Val | Ile | Ala | Gly | Leu | Gly | Gly | Lys | Asp | Asn | Leu | Asp | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Val | Asp | Cys | Cys | Ala | Thr | Arg | Leu | Arg | Val | Thr | Val | Lys | Asp | Gly | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Lys | Val | Asn | Glu | Ser | Ala | Leu | Lys | Ala | Thr | Gly | Ala | Arg | Gly | Val | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Val | Arg | Gly | Asn | Gly | Val | Gln | Val | Ile | Tyr | Gly | Pro | His | Val | Thr | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Lys | Asn | Glu | Val | Glu | Glu | Ile | Leu | Ser | | | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 7809

<211> 799

<212> PRT

<213> Enterobacter cloacae

<400> 7809

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Lys | Arg | Ala | Gly | His | Tyr | Leu | Ser | Leu | Val | Arg | Gly | Lys | Met | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Arg | Gly | Asp | Glu | Phe | Trp | Ile | Glu | Ile | Gln | Asp | Ile | Arg | His | Cys |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Val | Glu | Asp | Glu | Gly | Asp | Thr | Leu | Thr | Leu | Leu | Trp | Met | Leu | Glu | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ala | Glu | Leu | Asn | Thr | Asp | Ala | Gly | Arg | Asp | Thr | Leu | Glu | Ala | Asn |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Thr | Leu | Ala | Ile | Ile | Asn | Arg | His | Arg | Arg | Trp | Gln | Phe | Thr | Ser | Glu |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Thr | Ala | Asn | Val | Thr | Leu | Arg | Val | Thr | Leu | Ser | Gly | Arg | Trp | Val | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gln | Leu | Cys | Asn | Asp | Phe | Phe | Ala | His | Asp | Tyr | Ala | Val | Pro | Ala | Glu |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Ala | Gly | Gly | Val | Trp | Pro | Gln | Cys | Asp | Ala | Leu | Arg | Asp | Leu | Leu | Arg |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Gln | Leu | Leu | Val | Val | Thr | Leu | Ile | Asn | Asp | Pro | His | Arg | Tyr | Arg | Leu |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Glu | Ala | Tyr | Arg | Trp | Leu | Ser | Glu | Ile | Leu | Leu | Leu | Leu | Thr | Ser | Arg |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Phe | Gln | Gln | Pro | Ala | Arg | Met | Leu | Ser | Arg | Glu | Leu | Ser | Ser | Ala | His |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ser | Lys | Arg | Ile | Ala | Arg | Val | Ile | Glu | Arg | Ile | Asn | Ala | Ser | Tyr | Ser |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Arg | Arg | Ile | Thr | Leu | Ala | Glu | Ile | Ala | Ala | Ser | Glu | Tyr | Val | Ser | Glu |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Ala | Trp | Leu | Ser | Arg | Leu | Phe | Arg | Lys | Glu | Val | Gly | Ile | Ser | Phe | Met |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Gln | Tyr | Ile | Thr | Arg | Leu | Arg | Leu | Glu | Lys | Ala | Ala | Asn | Ala | Leu | Arg |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Leu | Thr | Asn | Arg | Pro | Leu | His | Gln | Ile | Ala | Leu | Glu | Gln | Gly | Phe | Ala |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ser | Thr | Arg | Met | Met | Ser | Asp | Arg | Phe | Arg | Arg | Val | His | Asn | Met | Ser |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Pro | Gly | Glu | Phe | Arg | Lys | Ala | Arg | Arg | Gln | His | Pro | Glu | Ala | Ala | Arg |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Val | Arg | Ala | Asp | Arg | Arg | Glu | Gln | Arg | Tyr | Pro | Val | Ala | Val | Asp | Lys |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Leu | Phe | Ser | Leu | Leu | Asn | Glu | Pro | Val | Ala | Arg | Gly | Trp | Gly | Ala | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Pro | Leu | Val | Val | His | Pro | Gln | Gln | Glu | Gln | Arg | Leu | Asp | Leu | Glu | Gln |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Asn | Pro | Leu | Ser | Ala | Ser | Leu | Arg | Arg | Met | Arg | Val | Val | Ile | Thr |


```
<210> 7810
<211> 481
<212> PRT
```


<213> Enterobacter cloacae

<400> 7810

```

Leu Leu Ile Pro Ile Arg Asn Phe Ile Arg Ser Lys Pro Pro Pro Ile
1      5      10      15
Val Pro Leu Phe Val Val Val Ser Glu Leu Leu Pro Val Asp Tyr Leu
20      25      30
Pro Leu Phe Ala Ala Leu Lys Asp Arg Pro Val Leu Val Val Gly Thr
35      40      45
Gly Glu Ile Ala Asp Arg Lys Ile Ala Phe Leu Gln Arg Ala Gly Ala
50      55      60
Gln Val Gln Ile Val Ala Glu Ala Asp Phe Ala Glu Ser Gln Ile Asp
65      70      75      80
Ser Val Val Leu Val Ile Ala Ala Thr Glu Asp Arg Ala Leu Asn Ser
85      90      95
Arg Ile Ser Asp Ala Ala Gln Ala Arg His Arg Leu Val Asn Val Val
100     105     110
Asp Asp Gln Pro Leu Cys Ser Phe Ile Phe Pro Ser Ile Val Asp Arg
115     120     125
Ser Pro Leu Leu Val Ala Ile Ser Ser Gly Gly Thr Ala Pro Val Leu
130     135     140
Ala Arg Val Leu Arg Glu Lys Ile Glu Ala Leu Leu Pro Thr Ser Leu
145     150     155     160
Gly Arg Met Ala Glu Lys Ala Ser Tyr Trp Arg Asn His Leu Lys Thr
165     170     175
Arg Leu Thr Ser Val Thr Glu Arg Arg Arg Phe Trp Glu Arg Val Phe
180     185     190
Arg Gly Arg Phe Ala Ser Leu Met Gln Ala Gly Asn Glu Thr Ala Ala
195     200     205
Gln Gln Ile Leu Glu Asp Glu Leu Asp Asn Pro Gly Ser Thr Gly Gly
210     215     220
Glu Ile Ile Leu Val Gly Ala Gly Pro Gly Asp Ala Gly Leu Leu Thr
225     230     235     240
Leu Arg Gly Leu Gln Val Leu Gln Asp Ala Asp Val Val Phe Tyr Asp
245     250     255
His Leu Val Thr Asp Gly Ile Arg Glu Leu Ile Arg Arg Asp Ala Glu
260     265     270
Gln Ile Cys Val Gly Lys Arg Ala Gly Glu His Ser Val Pro Gln His
275     280     285
Asp Thr Asn Gln Met Leu Ile Ala Ala Lys Ala Gly Lys Thr Val
290     295     300
Val Arg Leu Lys Gly Gly Asp Pro Phe Ile Phe Gly Arg Gly Gly Glu
305     310     315     320
Glu Leu Gln Ala Ala Ala Glu Ala Gly Val Pro Phe Gln Val Val Pro
325     330     335
Gly Ile Thr Ala Ala Ser Ala Val Thr Ala Tyr Ala Gly Ile Pro Leu
340     345     350
Thr His Arg Asp Tyr Ala Gln Ser Val Thr Phe Val Thr Gly His Tyr
355     360     365
Lys Ala Asp Ser Thr Pro Phe Asp Trp Ser His Leu Ala Gln Ser Arg
370     375     380
Gln Thr Leu Ala Ile Tyr Met Gly Thr Met Lys Ala Ala Asp Ile Ser
385     390     395     400
Glu Gln Leu Ile Gln His Gly Arg Asp Ala Ala Thr Pro Val Ala Val
405     410     415
Ile Ser Arg Gly Thr Arg Val Asp Gln His Val Ala Ile Gly Thr Leu
420     425     430
Gln Asp Leu Ala Thr Leu Ala Lys Asp Ala Pro Met Pro Ala Leu Ile
435     440     445
Val Val Gly Glu Val Val Gln Leu His Ser Thr Leu Ala Trp Phe Gln
450     455     460

```


His Thr Thr Asp Thr Glu Gly Phe Gly Ala Ser Val Ile Asn Leu Ala
 465 470 475 480

<210> 7811
 <211> 306
 <212> PRT
 <213> Enterobacter cloacae

<400> 7811
 Gly Thr Val Met Asp Gln Lys Arg Leu Thr His Leu Arg Gln Leu Glu
 1 5 10 15
 Ala Glu Ser Ile His Ile Ile Arg Glu Val Ala Ala Glu Phe Ser Asn
 20 25 30
 Pro Val Met Met Tyr Ser Ile Gly Lys Asp Ser Ser Val Met Leu His
 35 40 45
 Leu Ala Arg Lys Ala Phe Tyr Pro Gly Thr Leu Pro Phe Pro Leu Leu
 50 55 60
 His Val Asp Thr Gly Trp Lys Phe Arg Glu Met Tyr Glu Phe Arg Asp
 65 70 75 80
 Arg Thr Ala Lys Ala Tyr Gly Cys Glu Leu Val His Lys Asn Pro
 85 90 95
 Glu Gly Val Ala Met Gly Ile Asn Pro Phe Val His Gly Ser Ala Lys
 100 105 110
 His Thr Asp Ile Met Lys Thr Glu Gly Leu Lys Gln Ala Leu Asn Lys
 115 120 125
 Tyr Gly Phe Asp Ala Ala Phe Gly Gly Ala Arg Arg Asp Glu Glu Lys
 130 135 140
 Ser Arg Ala Lys Glu Arg Ile Tyr Ser Phe Arg Asp Arg Phe His Arg
 145 150 155 160
 Trp Asp Pro Lys Asn Gln Arg Pro Glu Leu Trp His Asn Tyr Asn Gly
 165 170 175
 Gln Ile Asn Lys Gly Glu Ser Ile Arg Val Phe Pro Leu Ser Asn Trp
 180 185 190
 Thr Glu Leu Asp Ile Trp Gln Tyr Ile Tyr Leu Glu Asn Ile Glu Ile
 195 200 205
 Val Pro Leu Tyr Leu Ala Ala Glu Arg Pro Val Leu Glu Arg Asp Gly
 210 215 220
 Met Leu Met Met Ile Asp Asp Arg Ile Asp Leu Gln Pro Gly Glu
 225 230 235 240
 Val Ile Lys Lys Gln Met Val Arg Phe Arg Thr Leu Gly Cys Trp Pro
 245 250 255
 Leu Thr Gly Ala Val Glu Ser Ser Ala Gln Thr Leu Pro Glu Ile Ile
 260 265 270
 Glu Glu Met Leu Val Ser Thr Thr Ser Glu Arg Gln Gly Arg Val Ile
 275 280 285
 Asp Arg Asp Gln Ala Gly Ser Met Glu Leu Lys Lys Arg Gln Gly Tyr
 290 295 300
 Phe
 305

<210> 7812
 <211> 478
 <212> PRT
 <213> Enterobacter cloacae

<400> 7812
 Gly Ala Ala Met Asn Thr Thr Ile Ala Gln Gln Ile Ala Asp Glu Gly
 1 5 10 15
 Gly Val Glu Ala Tyr Leu His Ala Gln Gln Tyr Lys Ser Leu Leu Arg


```
<210> 7813
<211> 116
<212> PRT
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<213> Enterobacter cloacae

<400> 7813

Val Thr Val Thr Gly Leu Ala Met Arg Asn Ser Glu Asn Tyr Met Ile
 1 5 10 15
 Thr Thr Gly Ser Glu Pro Leu Thr Thr Asp Asp Glu Thr Thr Trp Ser
 20 25 30
 Phe Pro Gly Ala Ile Val Gly Phe Val Ser Trp Leu Leu Ala Leu Gly
 35 40 45
 Ile Pro Phe Leu Ile Tyr Gly Gly Asn Thr Leu Phe Phe Phe Leu Tyr
 50 55 60
 Thr Trp Pro Phe Phe Leu Ala Leu Met Pro Val Ala Val Val Val Gly
 65 70 75 80
 Val Ala Leu His Ser Leu Phe Asn Gly Lys Leu Leu Tyr Ser Thr Leu
 85 90 95
 Ile Thr Ile Ala Thr Val Val Val Ile Phe Gly Leu Leu Phe Leu Trp
 100 105 110
 Leu Met Gly
 115

<210> 7814

<211> 360

<212> PRT

<213> Enterobacter cloacae

<400> 7814

Ser Arg Gly Ala Ala Gly Glu Gly Gly Gln Met Thr Asp Phe Asp Asn
 1 5 10 15
 Leu Thr Tyr Leu His Gly Glu Pro Gln Gly Lys Gly Leu Leu Lys Ala
 20 25 30
 Asn Pro Glu Asp Phe Val Val Val Glu Asp Leu Gly Phe Glu Pro Asp
 35 40 45
 Gly Glu Gly Glu His Ile Leu Val Arg Ile Leu Lys Asn Gly Cys Asn
 50 55 60
 Thr Arg Phe Val Ala Asp Ala Leu Ala Lys Phe Leu Asn Ile His Ala
 65 70 75 80
 Arg Glu Val Ser Phe Ala Gly Gln Lys Asp Lys His Ala Val Thr Glu
 85 90 95
 Gln Trp Leu Cys Ala Arg Val Pro Gly Asn Ala Met Pro Asp Leu Ser
 100 105 110
 Lys Phe Glu Leu Glu Gly Cys Lys Val Leu Glu Tyr Ala Arg His Lys
 115 120 125
 Arg Lys Leu Arg Leu Gly Ala Leu Lys Gly Asn Ala Phe Thr Leu Val
 130 135 140
 Leu Arg Glu Val Thr Glu Arg Glu Asp Val Glu Lys Arg Leu Lys Ala
 145 150 155 160
 Ile Asn Glu Arg Gly Val Pro Asn Tyr Phe Gly Ala Gln Arg Phe Gly
 165 170 175
 Ile Gly Gly Ser Asn Leu Leu Gly Ala Leu Arg Trp Ala Gln Ser Gly
 180 185 190
 Ala Pro Val Arg Asp Arg Asn Lys Arg Ser Phe Trp Leu Ser Ala Ala
 195 200 205
 Arg Ser Ala Leu Phe Asn Gln Ile Val Ser Glu Arg Leu Lys Lys Pro
 210 215 220
 Asp Ala Asn Gln Val Val Val Gly Asp Ala Leu Gln Leu Ala Gly Arg
 225 230 235 240
 Gly Ser Trp Phe Val Ala Thr Ala Asp Glu Met Ala Asp Val Gln Ser
 245 250 255
 Arg Val Asp Ala Lys Thr Leu Met Ile Thr Ala Ala Leu Pro Gly Ser
 260 265 270
 Gly Asp Trp Gly Thr Gln Gly Glu Ala Leu Ala Ala Glu Gln Ser Ala


```
<210> 7815
<211> 121
<212> PRT
<213> Enterobacter cloacae
```

```
<210> 7816
<211> 351
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | | |
|------------|---------|---------|---------|--------|---------|---------|---------|---------|--------|---------|---------|---------|---------|--------|---------|--|
| <400> 7816 | | | | | | | | | | | | | | | | |
| Gly 1 | Leu | Thr | Met | Phe 5 | Ser | Ala | Met | Arg | His 10 | Arg | Phe | Val | Ala | Leu 15 | Ala | |
| Leu | Gly | Val | Cys 20 | Phe | Ile | Leu | Pro | Ala 25 | Gln | Ala | Lys | Asn 30 | Pro | Ser | Tyr | |
| Gly | Glu | Ile 35 | Ala | Ser | Met | Gln | Ala 40 | Arg | His | Ile | Ala | Thr 45 | Val | Phe | Pro | |
| Gly | Arg | Met | Thr | Gly | Thr | Pro | Ala 55 | Glu | Met | Leu | Ser 60 | Ala | Asp | Tyr | Ile | |
| Arg 65 | Gln | Gln | Phe | Ala | Asp 70 | Met | Gly | Tyr | Glu | Ser 75 | Asp | Ile | Arg | Ala | Phe 80 | |
| His | Ser | Arg | Tyr | Ile 85 | Tyr | Thr | Thr | Arg | Asn 90 | Lys | Thr | Gln | Asn 95 | Trp | His | |
| Asn | Val | Thr | Gly 100 | Ser | Thr | Val | Ile | Ala 105 | Ala | His | Glu | Gly | Lys 110 | Thr | Ala | |
| Glu | Gln | Ile 115 | Ile | Ile | Met | Ala | His 120 | Leu | Asp | Thr | Tyr | Thr 125 | Pro | Leu | Ser | |
| Asp | Ala 130 | Asp | Val | Asp | Asn | Asn 135 | Leu | Gly | Gly | Leu | Thr 140 | Leu | Gln | Gly | Leu | |
| Asp 145 | Asp | Asn | Ala | Ala | Gly 150 | Leu | Gly | Val | Met | Leu 155 | Glu | Leu | Ala | Glu | Arg 160 | |


```

Leu Lys Asn Ile Pro Thr Lys Tyr Ser Ile Arg Phe Val Ala Thr Ser
      165      170
Gly Glu Glu Glu Gly Lys Leu Gly Ala Glu Asn Leu Leu Lys Arg Met
      180      185      190
Ser Ala Glu Glu Lys Lys Asn Thr Leu Leu Val Ile Asn Leu Asp Asn
      195      200      205
Leu Ile Val Gly Asp Lys Leu Tyr Phe Asn Ser Gly Gln Ser Thr Pro
      210      215      220
Ser Ser Val Arg Lys Leu Thr Arg Asp Arg Ala Leu Ala Leu Ala Arg
225      230      235      240
Thr His Gly Val Tyr Ala Ala Thr Asn Pro Gly Gly Asn Pro Glu Tyr
      245      250      255
Pro Lys Gly Thr Gly Cys Cys Asn Asp Gly Glu Val Phe Asp Lys Ala
      260      265      270
Gly Ile Pro Val Leu Tyr Val Glu Ala Thr Asn Trp Ala Leu Gly Lys
      275      280      285
Lys Asp Gly Tyr Gln Gln Arg Ser Lys Ser Lys Ala Phe Pro Asp Gly
      290      295      300
Thr Ser Trp His Asp Val Arg Leu Asp Asn Gln Gln His Ile Asp Lys
305      310      315      320
Ala Leu Pro Gln Arg Ile Glu His Arg Ser Arg Asp Val Val Lys Val
      325      330      335
Met Leu Pro Leu Val Lys Glu Leu Ala Lys Ala Gly Lys Ala
      340      345      350

```

<210> 7817

<211> 431

<212> PRT

<213> Enterobacter cloacae

<400> 7817

```

Leu Asn Cys Met Lys Asn Asn Gln Asn Lys Ala Val Ala Leu Gln Gln
1      5      10      15
Lys Ile Ala Phe Ser Gly Ser Thr Ile Val Ile Asp Ser Lys Leu Ser
      20      25      30
Ser Phe Gly Arg Lys Arg Ile Thr Lys Met Thr His Pro Ile Ile Glu
      35      40      45
Ala Leu Arg Gly Asn Glu Ala Arg Phe Thr Glu Leu Arg Arg Tyr Phe
      50      55      60
His Gln His Pro Glu Ile Gly Phe Glu Glu His Asn Thr Ser Asp Arg
65      70      75      80
Val Ala Ala Leu Leu Gln Glu Trp Gly Tyr Glu Val His Arg Gly Leu
      85      90      95
Ala Lys Thr Gly Val Val Gly Thr Leu Lys Val Gly Asn Gly His Lys
      100      105      110
Arg Leu Gly Leu Arg Ala Asp Met Asp Ala Leu Pro Met Gln Glu Asn
      115      120      125
Asn Gly Lys Ala Trp Ser Ser Thr Val Glu Gly Lys Phe His Gly Cys
      130      135      140
Gly His Asp Gly His Thr Thr Thr Leu Leu Tyr Ala Ala Glu Tyr Leu
145      150      155      160
Ala Arg Thr Arg Asn Phe Asn Gly Thr Leu His Leu Ile Phe Gln Pro
      165      170      175
Ala Glu Glu Leu Leu Tyr Gly Gly Arg Val Met Val Glu Asp Gly Leu
      180      185      190
Phe Asp Leu Phe Pro Cys Asp His Ile Phe Gly Leu His Asn Met Pro
      195      200      205
Ser Gln Pro Leu Gly Lys Ile Gly Leu Arg Asp Gly Ala Met Met Ala
      210      215      220
Ser Ser Asp Thr Leu His Ile Glu Val Asn Gly Val Gly Gly His Gly
225      230      235      240

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Pro | Glu | His | Thr | Val | Asp | Ala | Thr | Leu | Val | Ala | Cys | His | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Ile | Ala | Leu | Gln | Ser | Ile | Val | Ser | Arg | Asn | Ile | Thr | Pro | Phe | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Ala | Val | Val | Thr | Val | Gly | Ser | Ile | Gln | Ala | Gly | His | Ala | Pro | Asn |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ile | Ile | Asn | Asp | Lys | Val | Leu | Met | Lys | Leu | Thr | Val | Arg | Thr | Leu | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Glu | Arg | Val | Arg | Gln | Thr | Val | Leu | Gln | Arg | Ile | His | Asp | Ile | Ala | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Gln | Ala | Glu | Ser | Phe | Asn | Ala | Thr | Ala | Thr | Ile | Arg | His | Ile | Asn |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Ser | Pro | Val | Leu | Lys | Asn | Asn | Pro | Gln | Ala | Asn | Glu | Met | Val | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Val | Ala | Thr | Asp | Leu | Phe | Gly | Gln | Asp | Ala | Val | Ala | Glu | Val | Asn |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Phe | Met | Gly | Ser | Glu | Asp | Phe | Ala | Phe | Met | Leu | Glu | Lys | Asn | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asn | Gly | Cys | Tyr | Phe | Thr | Leu | Gly | Ala | Gly | Asp | Glu | Pro | Asp | Arg | Cys |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Met | Val | His | Asn | Pro | Gly | Tyr | Asp | Phe | Asn | Asp | Asn | Ile | Leu | Leu | Thr |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Gly | Ala | Ala | Leu | Trp | Ala | Ala | Leu | Thr | Glu | His | Asn | Leu | Arg | | |
| | | | 420 | | | | | 425 | | | | | 430 | | |

<210> 7818

<211> 475

<212> PRT

<213> Enterobacter cloacae

<400> 7818

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Ala | Pro | Ser | Arg | Glu | Gly | Cys | Thr | Met | Ser | Thr | Val | Ser | Leu | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ala | Ser | Ala | Tyr | Ala | Gly | Asn | Asp | Arg | Leu | Leu | Ala | Gly | Ile | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Ser | Val | Leu | Thr | Phe | Trp | Leu | Phe | Ala | Gln | Ser | Val | Ile | Asn | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Pro | Ala | Met | Gln | Asn | Ser | Leu | Asp | Ile | Ala | Leu | Glu | Thr | Leu | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ala | Val | Ser | Leu | Ser | Ala | Leu | Phe | Ser | Gly | Cys | Phe | Val | Val | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Cys | Gly | Gly | Phe | Ala | Asp | Lys | Tyr | Gly | Arg | Met | Arg | Leu | Thr | Met | Ile |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Leu | Ile | Leu | Ser | Met | Ile | Gly | Ser | Gly | Leu | Leu | Phe | Ile | Ser | Trp |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Glu | Pro | Val | Leu | Phe | Leu | Leu | Gly | Arg | Ala | Ile | Gln | Gly | Leu | Ser | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Cys | Ile | Met | Pro | Ala | Thr | Leu | Ala | Leu | Ile | Lys | Thr | Trp | Tyr | Asp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Lys | Ala | Arg | Gln | Arg | Ala | Ile | Ser | Phe | Trp | Val | Ile | Gly | Ser | Trp |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Gly | Gly | Ser | Gly | Leu | Ser | Ser | Phe | Val | Gly | Gly | Ala | Ile | Ala | Thr | Thr |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Gly | Trp | Arg | Trp | Ile | Phe | Ile | Phe | Ser | Met | Val | Val | Ala | Leu | Ala |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ala | Leu | Leu | Ile | Ile | Arg | Ala | Thr | Pro | Glu | Ser | Arg | Ser | His | Asp | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Cys | Arg | His | Lys | Leu | Asp | Ile | Ser | Gly | Leu | Val | Ser | Phe | Val | Leu | Met |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Val | Leu | Phe | Asn | Leu | Phe | Ile | Ser | Lys | Gly | His | Ser | Trp | Gly | Trp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |

Ser Ser Ser Leu Ser Leu Leu Val Leu Cys Gly Ala Val Ile Ala Leu
 245 250 255
 Met Cys Phe Val Val Thr Gly Arg Arg Lys Gly Asp Ala Ala Leu Ile
 260 265 270
 Asp Phe Ala Leu Phe Lys Asn Arg Ala His Ser Ala Ser Val Phe Ser
 275 280 285
 Asn Phe Leu Leu Asn Gly Cys Ile Gly Thr Met Met Ile Ala Ser Ile
 290 295 300
 Trp Leu Gln Gln Gly His His Leu Ser Pro Leu Gln Thr Gly Met Met
 305 310 315 320
 Thr Leu Gly Tyr Leu Val Thr Val Leu Ala Met Ile Arg Val Gly Glu
 325 330 335
 Lys Leu Leu Gln Arg Tyr Gly Ala Arg Leu Pro Met Met Thr Gly Pro
 340 345 350
 Leu Leu Thr Ala Thr Gly Ile Ser Leu Ile Ser Cys Thr Phe Leu Ser
 355 360 365
 Lys Glu Val Tyr Ile Val Thr Val Phe Leu Ser Asn Ile Leu Phe Gly
 370 375 380
 Leu Gly Leu Gly Cys Tyr Ala Thr Pro Ser Thr Asp Thr Ala Val Met
 385 390 395 400
 Asn Ala Pro Glu Asn Lys Val Gly Val Ala Ser Gly Ile Tyr Lys Met
 405 410 415
 Gly Ser Ser Leu Gly Gly Ala Met Gly Ile Ala Val Thr Ala Ser Leu
 420 425 430
 Tyr Ala Leu Trp Leu Pro Met Gly Thr Ala Ser Ala Ala Gln Tyr Ala
 435 440 445
 Leu Leu Phe Asn Ser Ala Ile Cys Leu Gly Ser Ala Val Val Thr Trp
 450 455 460
 Ala Leu Leu Pro Thr Thr Lys Ala Pro Arg
 465 470 475

<210> 7819

<211> 178

<212> PRT

<213> Enterobacter cloacae

<400> 7819

Leu Ser Phe Leu Thr Ile Lys Ala Ile Lys Gln Leu Ser Glu Ile Lys
 1 5 10 15
 Gln Gln Lys Ser Ile Asn Thr Met Asn Thr Arg Arg Arg Gln Phe Arg
 20 25 30
 Ala Val Leu Val Asn Asp Lys Asn Cys Ala Phe Arg Tyr Tyr Ala Ala
 35 40 45
 Val Phe Ser Ala Phe Leu Arg Ala Met Met Ser Thr Thr Leu Phe Lys
 50 55 60
 Asp Phe Thr Phe Glu Ala Ala His His Leu Pro His Val Pro Ala Gly
 65 70 75 80
 His Lys Cys Gly Arg Leu His Gly His Ser Phe Met Val Arg Leu Glu
 85 90 95
 Ile Thr Gly Glu Val Asp Pro His Thr Gly Trp Ile Met Asp Phe Ala
 100 105 110
 Glu Leu Lys Ala Ala Phe Lys Pro Thr Tyr Asp Arg Leu Asp His Tyr
 115 120 125
 Tyr Leu Asn Asp Ile Pro Gly Leu Glu Asn Pro Thr Ser Glu Val Leu
 130 135 140
 Ala Lys Trp Ile Trp Asp Gln Met Lys Pro Leu Val Pro Leu Leu Ser
 145 150 155 160
 Ala Val Met Ile Lys Glu Thr Cys Thr Ala Gly Cys Val Tyr Arg Gly
 165 170 175

Glu

<210> 7820
 <211> 108
 <212> PRT
 <213> Enterobacter cloacae

<400> 7820
 His Phe Arg Ala Ile Ser Trp Leu His Ile Asn Gly Arg Glu Trp Lys
 1 5 10 15
 His Ile Arg Glu Val Leu Ile Tyr Ala Phe Ile Tyr Glu Gly Val Pro
 20 25 30
 Ser Trp Asp Lys Thr Asp Gly Val Val Thr Ile His Val Pro Asp Gln
 35 40 45
 Pro Pro Ile Glu Thr Arg Leu Thr Glu Gly Glu Asn Arg Arg Thr Leu
 50 55 60
 Cys Ala Ile Ala Arg Leu Val Asn Glu Asn Gly Ala Ile Lys Val Glu
 65 70 75 80
 Arg Ile Asn Gln Tyr Phe Lys Gly Gln Asp Glu Met Asp Arg Ala Phe
 85 90 95
 Gly Trp Gly Phe Arg Trp Ser Ala Gly Ser Lys
 100 105

<210> 7821
 <211> 102
 <212> PRT
 <213> Enterobacter cloacae

<400> 7821
 Gly Gln Leu Met Ile Asn Asn Asp Tyr Pro Leu Asn Thr Leu Asn Gln
 1 5 10 15
 Leu Arg Pro Leu Leu Ile Gly Phe Arg Lys Ala Asn Gly Leu Thr Gln
 20 25 30
 Lys Asp Leu Ser Glu Arg Leu Gly Val Thr Gln Gln Thr Tyr Ser Arg
 35 40 45
 Leu Glu Ala Asn Pro Ala Ser Ala Ser Ile Glu Arg Leu Phe Lys Val
 50 55 60
 Phe Thr Val Leu Gly Val Lys Ile Ser Phe Ser Ser Ala Thr Thr Ser
 65 70 75 80
 Ser Glu Arg Lys Gln Thr Glu Asp Ile Tyr Lys Leu Asn Ser Pro Ala
 85 90 95
 Pro Gln Glu Asp Trp
 100

<210> 7822
 <211> 276
 <212> PRT
 <213> Enterobacter cloacae

<400> 7822
 Glu Glu Ile Lys Met Arg Glu Pro Arg Pro Arg His Thr Leu Gln Val
 1 5 10 15
 Ile Arg Val Pro Ser Leu Glu Val Gln Asp Leu Gly Leu Thr Ser Phe
 20 25 30
 Asp Ser Trp Leu Asp Glu His Gly Tyr Asp Lys Thr Asn Ala Arg Asn
 35 40 45
 Asn Arg Thr Ile Trp Ala Arg Glu Gly Gly Trp His Leu Lys Arg Cys
 50 55 60
 Arg Asn Leu Glu Thr Gly Thr Asp Asp Phe Trp Phe Ile Ala Phe Asp
 65 70 75 80
 Gly Lys Gly Gly Lys Ile Tyr Pro Leu Lys Thr Gln Arg Asp Tyr Arg
 85 90 95

Ala Ala Tyr Arg Lys Leu Glu Ala Glu Gly Tyr Ala Pro Ala Val Ile
 100 105 110
 Glu Gln Met Thr Thr Gly Ala Ala Tyr Asn Leu Ala Tyr Pro Arg Ser
 115 120 125
 Thr Leu Lys Gln Val Glu Thr Ala Thr Ser Glu Pro Met Arg Lys Pro
 130 135 140
 Asp Val Asp Ile Gln Gly Glu His Cys Glu Arg Val Val Thr Gln Arg
 145 150 155 160
 Ser Gly Val Ala Gln Gly Lys Phe Lys Ala Leu Leu Ile Glu Asn Phe
 165 170 175
 Ala Gly Arg Cys Ala Val Thr Gly Trp Val Asn Gly Gly Val Leu Asp
 180 185 190
 Ala Ala His Ile Glu His Gly Thr Arg Tyr Asn Pro Ser Asn Gly Ile
 195 200 205
 Leu Met Thr Pro Thr Met His Ala Leu Phe Asp Ala Asp Leu Met Gly
 210 215 220
 Ile Asp Pro Ala Thr Leu Thr Val His Phe Lys Pro Gly Ile Glu Val
 225 230 235 240
 Gly Glu Leu Phe Glu Gly Arg Lys Ile Thr Pro Leu Val Tyr Asp Leu
 245 250 255
 Asp Leu Glu Arg Leu Ala Val Arg Trp Ala Glu Tyr Gln Gly Leu Ala
 260 265 270
 Gln Asp Gln
 275

<210> 7823

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 7823

Tyr Gly His Glu Trp Arg Trp Met Pro Gly Asn Arg Pro His Tyr Gly
 1 5 10 15
 Arg Trp Pro Gln His Asp Phe Pro Pro Phe Lys Lys Leu Arg Pro Gln
 20 25 30
 Ser Val Thr Ser Arg Ile Gln Pro Gly Ser Asp Val Ile Val Cys Ala
 35 40 45
 Glu Met Asp Glu Gln Trp Gly Tyr Val Gly Ala Lys Ser Arg Gln Arg
 50 55 60
 Trp Leu Phe Tyr Ala Tyr Asp Arg Leu Arg Lys Thr Val Val Ala His
 65 70 75 80
 Val Phe Gly Glu Arg Thr Met Ala Thr Leu Gly Arg Leu Met Ser Leu
 85 90 95
 Leu Ser Pro Phe Asp Val Val Ile Trp Met Thr Asp Gly Trp Pro Leu
 100 105 110
 Tyr Glu Ser Arg Leu Lys Gly Lys Leu His Val Ile Ser Lys Arg Tyr
 115 120 125
 Thr Gln Arg Ile Glu Arg His Asn Leu Asn Leu Arg Gln His Leu Ala
 130 135 140
 Arg Leu Gly Arg Lys Ser Leu Ser Phe Ser Lys Ser Val Glu Leu His
 145 150 155 160
 Asp Lys Val Ile Gly His Tyr Leu Asn Ile Lys His Tyr Gln
 165 170 175

<210> 7824

<211> 196

<212> PRT

<213> Enterobacter cloacae

<400> 7824

Thr Lys Thr Ala Gln Leu Lys Ser Ser Glu Leu Thr Ser Thr Ser Lys


```
<210> 7825
<211> 211
<212> PRT
<213> Enterobacter cloacae
```

[illegible]

<210> 7826

<211> 421

<212> PRT

<213> Enterobacter cloacae

<400> 7826

```

Ser Lys Ile Arg Arg Val Asn Val Asn Leu Gln Ser Gly Gln Asn Ile
1      5      10      15
Pro Leu Gln Gln Ser Ala Ile Arg Leu Ash Leu Gln Tyr Pro Thr Lys
      20      25      30
Ser Gly Phe Lys Gly Glu Pro Asp Thr Cys Leu Phe Leu Leu Asn Ala
      35      40      45
Gln Gly Lys Val Ser Gly Asp Ser Asp Phe Ile Phe Tyr Asn Asn Leu
      50      55      60
Ser Ser Pro Glu Gly Ala Val Lys Leu Val Thr Gly Ser Gln Gln Ser
65      70      75      80
Ser Ile Glu Ile Ala Leu Asp Arg Val Pro Ala Asn Ile Ser Lys Ile
      85      90      95
Ala Ile Thr Val Val Ile Asp Gly Glu Asp Thr Ile Ser Gly Leu Ser
      100     105     110
Ser Leu Ser Met Gln Ala Gln Gly Ile Ala Glu Phe Gln Ala Glu Thr
      115     120     125
Gln Gly Arg Ser Glu Lys Ala Ile Ile Leu Gly Glu Val Tyr Arg His
      130     135     140
Asn Gly Ala Trp Lys Leu Arg Ala Leu Gly Gln Gly Phe Asn Gly Gly
145     150     155     160
Leu Glu Pro Leu Ala Ile Ser Tyr Gly Val Asp Val Ala Gln Pro Ala
      165     170     175
Pro Gln Pro Ala Lys Pro Ala Arg Ile Ser Leu Glu Lys Lys Leu Glu
      180     185     190
Thr Arg Ser Pro Arg Leu Val Ser Leu Ala Lys Lys Ala Ser Val Ser
      195     200     205
Leu Thr Lys Asn Lys Leu Asp Thr Leu Glu Ala Ala Val Ala Phe Val
      210     215     220
Leu Asp Ala Ser Gly Ser Met Ser Gly Gln Phe Ser Lys Gly Asn Val
225     230     235     240
Gln Ser Val Leu Asp Arg Ile Ala Val Leu Ala Ala Gln Phe Asp Asp
      245     250     255
Asp Gly Glu Met Asp Val Trp Gly Phe Gly Glu Lys His Lys Lys Tyr
      260     265     270
Pro Asn Val Thr Leu Asp Asn Leu Asp Thr Tyr Ile Gln Ser Ile Arg
      275     280     285
Gly Ala Gly Lys Arg Ser Ala Trp Glu Asn Leu Pro Gly Leu Gly Gly
      290     295     300
Thr Asn Asn Glu Pro Pro Val Met Glu Glu Ile Val Asp Tyr Phe Lys
305     310     315     320
Asp Ser Lys Ile Pro Val Tyr Val Val Phe Ile Thr Asp Gly Gly Ile
      325     330     335
Ser Lys Thr Arg Ala Ile Lys Asp Ala Ile Arg Arg Ser Ala Asn Tyr
      340     345     350
Pro Ile Phe Trp Lys Phe Val Gly Leu Gly Gly Ser Ser Tyr Gly Ile
      355     360     365
Leu Lys Asn Leu Asp Asp Phe Thr Asp Arg Arg Val Asp Asn Thr His
      370     375     380
Phe Phe Ala Met Asp Asp Phe Gly Ser Ile Ser Asp Glu Lys Leu Tyr
385     390     395     400
Asp Asn Leu Leu Glu Phe Arg Pro Trp Ile Asp Glu Thr Lys Arg
      405     410     415
Leu Gly Ile Leu
      420

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<210> 7827
 <211> 453
 <212> PRT
 <213> Enterobacter cloacae

<400> 7827

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | His | Leu | His | His | Arg | Arg | Ile | Gly | Asn | Tyr | Met | Ser | Arg | Lys | Gln |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Gln | Arg | Leu | Val | Ile | Trp | Met | Asn | Gly | Ile | Lys | Ile | Gly | Tyr | Trp | Glu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Lys | Ser | Lys | Gly | Val | Asp | Ser | Leu | Glu | Tyr | Leu | Pro | Glu | Trp | Val | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Glu | Gln | Gly | Arg | Pro | Leu | Ser | Leu | Ser | Leu | Pro | Phe | Thr | Pro | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Gln | Val | Trp | Arg | Gly | Asn | Val | Val | Arg | Asp | Tyr | Phe | Asp | Asn | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Pro | Asp | Ser | Glu | Gly | Ile | Arg | Arg | Arg | Leu | Ala | Met | Arg | Tyr | Lys |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ala | Asp | Ser | Leu | Glu | Pro | Phe | Asp | Leu | Leu | Thr | Glu | Leu | Gly | Lys | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | Val | Gly | Ala | Ile | Gln | Leu | Leu | His | Asp | Gly | Asp | Glu | Pro | Thr | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Tyr | Ser | Val | Lys | Tyr | His | Pro | Leu | Thr | Glu | Ser | Glu | Ile | Ala | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Leu | Arg | Asn | Thr | Thr | Glu | Thr | Leu | Leu | Pro | Gly | Arg | Pro | Glu | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Asp | Asp | Leu | Arg | Leu | Ser | Ile | Ala | Gly | Ala | Gln | Glu | Lys | Thr | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Leu | Trp | His | Glu | Asp | Arg | Trp | Cys | Met | Pro | Glu | Gly | Asn | Thr | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Thr | His | Ile | Phe | Lys | Leu | Pro | Leu | Gly | Leu | Val | Gly | Asn | Met | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Asp | Met | Ser | Ser | Ser | Val | Glu | Asn | Glu | Trp | Leu | Cys | Ser | Val | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Leu | Asp | Gln | Tyr | Gly | Leu | Pro | Val | Ala | Arg | Thr | Gln | Ile | Ala | His | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Asp | Gln | Lys | Ala | Leu | Val | Val | Glu | Arg | Phe | Asp | Arg | Lys | Trp | Ser |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Asp | Gly | Gln | Trp | Ile | Ile | Arg | Leu | Pro | Gln | Glu | Asp | Met | Cys | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Leu | Gly | Val | Ser | Pro | Leu | Arg | Lys | Tyr | Gln | Ala | Asp | Gly | Gly | Pro |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Ile | Ser | Glu | Ile | Met | Glu | Val | Leu | Ser | Asn | Ser | Asp | Arg | Ala | Glu |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Arg | Asp | Lys | Ala | Gln | Phe | Phe | Met | Thr | Gln | Ile | Ile | Phe | Trp | Met | Met |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Ala | Thr | Asp | Gly | His | Ala | Lys | Asn | Phe | Ser | Ile | Ser | Ile | Gly | Pro |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Gln | Gly | Arg | Tyr | His | Leu | Thr | Pro | Leu | Tyr | Asp | Val | Leu | Ser | Ala | Trp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Val | Ile | Gly | His | Gly | Asn | Asn | Gln | Ile | Ser | Trp | Gln | Lys | Cys | Lys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Ala | Met | Ala | Val | Arg | Gly | Ser | Ser | Asn | Tyr | Tyr | Gln | Ile | Tyr | Arg |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ile | Gln | Arg | Arg | His | Trp | Ile | Arg | His | Gly | Glu | Ile | Thr | Gly | Leu | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Lys | Gln | Gln | Thr | Glu | Ala | Met | Ile | Glu | Glu | Ile | Ile | Ala | Arg | Thr | Pro |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Gly | Val | Ile | Glu | Arg | Val | Ser | Gly | Leu | Leu | Pro | Asp | Gln | Phe | Pro | Gln |
| | | 420 | | | | | | 425 | | | | 430 | | | |
| Gln | Leu | Ala | Glu | Ser | Ile | Phe | Asp | Gly | Met | Arg | Gln | Gln | Cys | Arg | Arg |

435
Leu Ala Glu Lys
450

440

445

<210> 7828
<211> 95
<212> PRT
<213> Enterobacter cloacae

<400> 7828
Gly Ala Pro Val Ala Ser Val Ser Ile Ser Cys Pro Ser Cys Ser Ala
1 5 10 15
Thr Asp Gly Val Val Arg Asn Gly Lys Ser Thr Ala Gly His Gln Arg
20 25 30
Tyr Leu Cys Ser His Cys Arg Lys Thr Trp Gln Leu Gln Phe Thr Tyr
35 40 45
Thr Ala Ser Gln Pro Gly Thr His Gln Lys Ile Ile Asp Met Ala Met
50 55 60
Asn Gly Val Gly Cys Arg Ala Thr Ala Arg Ile Met Gly Val Gly Leu
65 70 75 80
Asn Thr Ile Phe Arg His Leu Lys Asn Ser Gly Arg Ser Arg
85 90 95

<210> 7829
<211> 348
<212> PRT
<213> Enterobacter cloacae

<400> 7829
Asn Met Val Ser Thr His Ile Gly Phe Pro Thr Glu Thr Val Ile Val
1 5 10 15
Phe Ile Ala Leu Ser Val Gly Ala Ile Phe Ile Asp Leu Phe Met His
20 25 30
Arg Asp Asp Lys Pro Ile Ser Leu Lys Ser Ala Ala Leu Trp Ser Val
35 40 45
Phe Trp Val Val Val Ala Met Ala Phe Ala Gly Phe Leu Tyr Ile His
50 55 60
His Gly Ala Glu Val Ala Ser Leu Phe Val Thr Gly Tyr Ala Leu Glu
65 70 75 80
Lys Val Leu Ser Val Asp Asn Leu Phe Val Met Met Ala Ile Phe Ser
85 90 95
Trp Phe Ala Val Pro Asp Arg Tyr Arg His Arg Val Leu Tyr Trp Gly
100 105 110
Ile Ile Gly Ala Ile Val Phe Arg Gly Ile Phe Val Ala Ile Gly Thr
115 120 125
Ser Leu Leu Ser Leu Gly Pro Tyr Val Glu Val Val Phe Ala Ile Ile
130 135 140
Val Ala Trp Thr Ala Val Met Met Leu Lys Ser Gly Asp Asp Asp Asp
145 150 155 160
Glu Ile Glu Asp Tyr Ser Gln His Leu Ala Tyr Arg Met Val Lys Arg
165 170 175
Phe Phe Pro Ile Trp Pro Lys Leu Arg Gly His Ala Phe Leu Leu Asn
180 185 190
Gln Lys Glu Val Asp Ala Glu Leu Ala Lys Pro Glu Asn Ser Asp Val
195 200 205
Thr Ile Gly Arg Gly Lys Lys Ala Ala Leu Tyr Ala Thr Pro Leu Phe
210 215 220
Leu Cys Val Ala Val Val Glu Leu Ser Asp Val Met Phe Ala Phe Asp
225 230 235 240
Ser Val Pro Ala Ile Ile Ala Val Ser Arg Glu Pro Leu Ile Val Tyr
245 250 255

Ser Ala Met Met Phe Ala Ile Leu Gly Leu Arg Thr Leu Tyr Phe Val
 260 265 270
 Leu Glu Ala Leu Lys Gln Tyr Leu Val His Leu Glu Lys Ala Val Ile
 275 280 285
 Val Leu Leu Phe Phe Ile Ala Ala Lys Leu Gly Leu Asn Ala Thr Asp
 290 295 300
 His Ile Trp His His Gly Tyr Ser Ile Ala Ala Thr Thr Ser Leu Tyr
 305 310 315 320
 Val Val Leu Gly Val Leu Ala Leu Gly Ile Leu Ala Ser Val Met Phe
 325 330 335
 Pro Gly Lys Pro Glu Ser Glu Glu Lys Gly Ser
 340 345

<210> 7830

<211> 202

<212> PRT

<213> Enterobacter cloacae

<400> 7830

Thr Ile Thr Asn Arg Arg Gly Tyr Phe Met Ser Val Ser Leu Ser Lys
 1 5 10 15
 Gly Gly Asn Val Ser Leu Ser Lys Ala Ala Pro Ser Met Lys Asn Val
 20 25 30
 Leu Val Gly Leu Gly Trp Asp Ala Arg Ser Thr Asp Gly Gln Asp Phe
 35 40 45
 Asp Leu Asp Ala Ser Ala Phe Leu Leu Ala Ser Asn Gly Lys Val Arg
 50 55 60
 Gly Asp Ser Asp Phe Ile Phe Tyr Asn Asn Leu Thr Ser Ser Asp Gly
 65 70 75 80
 Ser Val Thr His Thr Gly Asp Asn Arg Thr Gly Glu Gly Asp Gly Asp
 85 90 95
 Asp Glu Ser Leu Lys Ile Lys Leu Asp Ala Val Pro Ser Glu Val Asp
 100 105 110
 Lys Ile Ile Phe Val Val Thr Ile His Asp Ala Gln Ala Arg Arg Gln
 115 120 125
 Ser Phe Gly Gln Val Ser Gly Ala Phe Ile Arg Leu Val Asn Asp Asp
 130 135 140
 Asn Gln Thr Glu Val Ala Arg Tyr Asp Leu Thr Glu Asp Ala Ser Thr
 145 150 155 160
 Glu Thr Ala Met Leu Phe Gly Glu Leu Tyr Arg His Asn Gly Glu Trp
 165 170 175
 Lys Phe Arg Ala Val Gly Gln Gly Tyr Ala Gly Gly Leu Ala Ser Val
 180 185 190
 Cys Ala Gln Tyr Gly Ile Asn Ala Ser
 195 200

<210> 7831

<211> 78

<212> PRT

<213> Enterobacter cloacae

<400> 7831

Cys Cys Gln Leu Thr Asp Leu Val Tyr Asp Gly Val Phe Glu Val Leu
 1 5 10 15
 Gln Trp Leu Leu Phe Leu Ser Ala Val Pro Pro Val Gln Leu Leu Thr
 20 25 30
 Gly Trp Cys Val Thr Ala Lys Ala Pro Pro Asp Ile Ser Ala Ile Ser
 35 40 45
 Ala Leu Thr Ala Val Lys His Gly Asn Cys Ser Ser Leu Thr Pro Leu
 50 55 60
 Leu Asn Pro Val Arg Thr Arg Lys Ser Leu Ile Trp Pro

65

70

75

<210> 7832

<211> 681

<212> PRT

<213> Enterobacter cloacae

<400> 7832

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Met | Thr | Lys | Arg | Leu | Thr | Trp | Glu | Gln | Lys | Ser | Ile | Val | Ser | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Thr | Gly | His | Ala | Leu | Val | Lys | Ala | Val | Pro | Gly | Ser | Gly | Lys | Thr |
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| Thr | Thr | Leu | Val | Lys | Arg | Val | Glu | Arg | Leu | Val | Lys | Thr | Gly | Thr | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
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| Phe | Thr | Glu | Lys | Leu | Lys | Thr | Ala | Leu | Met | Ser | Ser | Val | Ile | Pro | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Arg | Thr | Phe | His | Ser | Leu | Ala | Leu | Lys | Ile | Val | Gly | Tyr | Gly | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Gln | Gln | Ile | Ile | Lys | Lys | Lys | Asp | Leu | Ile | Thr | Pro | Ser | Asp | Tyr |
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| Arg | Tyr | Glu | Gln | Leu | Val | Lys | Gln | Ala | Tyr | Arg | Tyr | Gly | Phe | Asp | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Ala | Asn | Tyr | Ile | Asp | Pro | Asn | Glu | Ile | Glu | Asn | Phe | Glu | Leu | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Ala | Arg | Cys | Arg | Ala | Ala | Ala | Val | Thr | Pro | Val | Asp | Ala | Ala | Asn |
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| Asp | Pro | Thr | Phe | Ser | Asn | Ile | Lys | Arg | Glu | Phe | Ile | His | Ala | Tyr | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Tyr | Cys | Glu | Leu | Leu | Glu | Glu | Asn | Ser | Leu | Arg | Thr | Phe | Asp | Asp |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Cys | Leu | Ile | Glu | Ala | Val | Ala | Leu | Leu | Arg | Asn | Asp | Ser | Ser | Leu | Gly |
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| Ala | His | Phe | Lys | His | Ile | Ile | Val | Asp | Glu | Tyr | Gln | Asp | Val | Asn | Leu |
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| Ile | Gln | His | Asp | Met | Thr | Arg | Leu | Leu | Ser | Lys | Ser | Asp | Thr | Ser | Val |
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| Met | Ala | Val | Gly | Asp | Val | Asn | Gln | Cys | Ile | Tyr | Glu | Trp | Arg | Gly | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Pro | Asp | Phe | Ile | Gly | Gly | Leu | Phe | Glu | Arg | His | Tyr | Pro | Asn | Thr |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Lys | Val | Phe | Gln | Leu | Ser | Cys | Thr | Phe | Arg | Phe | Gly | His | Glu | Leu | Ser |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Met | Ala | Asn | Ser | Val | Ile | Arg | Arg | Asn | Ser | Thr | Lys | Leu | Thr | Lys |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Cys | Val | Ser | His | Pro | Ser | Thr | Pro | Lys | Thr | Glu | Val | Arg | Leu | His |
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| Phe | Asp | Asn | Cys | Leu | Ser | Lys | Val | Leu | Ser | Asn | Leu | Ser | Val | Ser | Ser |
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| Gly | Thr | Gln | Ala | Ile | Leu | Ser | Arg | Thr | Lys | Ala | Asn | Leu | Ala | Glu | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Ile | Ala | Leu | Arg | Leu | Cys | Gly | Leu | Pro | Tyr | Arg | Tyr | Leu | Asn | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Ser | Ala | Leu | His | Thr | Arg | Thr | Glu | Ile | Gly | Ile | Leu | Val | Val | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Val | Leu | Leu | Ser | Val | Tyr | Gly | Asp | Leu | Arg | Leu | Leu | Glu | Asn | His | Pro |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asn | Lys | Gln | Ala | Ile | Val | Tyr | Gly | Phe | Leu | Lys | Glu | Ala | Gly | Phe | Ser |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Trp | Gln | Lys | Gly | Gln | Phe | Lys | Ala | Ala | Leu | Ser | Gly | Leu | Met | Ala | Pro |


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<211> 816
<212> PRT
<213> Enterobacter cloacae
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| Thr 1 | Leu | Thr | Ala | Gln 5 | Val | Glu | Lys | Gln | His 10 | Lys | Ser | Ala | Leu | Asp 15 | Ser |
| Leu | Leu | Ile | Ser | Glu | Gly | Glu | Gln | Ala | Ser | Arg | Leu | Ala | Leu | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Pro | Pro | Gly | Lys | Ile | Asn | Gly | Lys | Asn | Val | Leu | Gln | His | Ile | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Leu | Asn | Ser | Ile | Ala | Ala | Leu | Gly | Leu | Pro | Asp | Gly | Ile | Ala | Leu |
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| Ser | Val | His | Gln | Asn | Arg | Leu | Leu | Lys | Leu | Ala | Arg | Glu | Gly | Arg | Lys |
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| Met | Ser | Ser | Arg | Asp | Leu | Ala | Lys | Phe | Thr | Asp | Val | Arg | Arg | Tyr | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Leu | Val | Cys | Ile | Ile | Thr | Glu | Ala | Arg | Ala | Thr | Leu | Thr | Asp | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Ile | Asp | Leu | His | Glu | Arg | Ile | Leu | Gly | Ser | Leu | Phe | Ser | Arg | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Arg | Thr | Gln | Ala | Glu | Arg | Leu | Gln | Gln | Thr | Gly | Lys | Leu | Ile | Gln |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ser | Lys | Leu | Lys | Gln | Tyr | Val | Thr | Val | Gly | Gln | Ala | Leu | Leu | Asn | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | Glu | Ser | Gly | Glu | Asp | Pro | Trp | Thr | Ala | Ile | Glu | Asp | Val | Leu | Pro |

| | | | | | | | | | | | | | | | | | |
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| | | | | 165 | | | | | 170 | | | | 175 | | | | |
| Trp | Gln | Glu | Phe | Ile | Asn | Ser | Val | Glu | Glu | Thr | Arg | Phe | Leu | Ser | Arg | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Lys | Gly | Asn | Phe | Asp | Ala | Leu | His | Leu | Ile | Thr | Glu | Lys | Tyr | Ser | Thr | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Arg | Lys | Tyr | Ala | Pro | Arg | Met | Leu | Ser | Ala | Leu | Gln | Phe | Met | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Thr | Pro | Ala | Ala | Gln | Ala | Leu | Ser | Asp | Ala | Leu | Asp | Thr | Ile | Thr | Glu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Met | Tyr | Arg | Lys | Gln | Leu | Arg | Lys | Val | Pro | Pro | Ser | Ala | Pro | Thr | Gly | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Phe | Ile | Pro | Glu | Ser | Trp | Arg | Lys | Leu | Val | Leu | Thr | Pro | Ser | Gly | Ile | | |
| | | 260 | | | | | | 265 | | | | | 270 | | | | |
| Asp | Arg | Lys | Tyr | Tyr | Glu | Phe | Cys | Val | Leu | Asn | Glu | Leu | Lys | Gly | Ala | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Leu | Arg | Ser | Gly | Asp | Ile | Trp | Val | Lys | Gly | Ser | Arg | Arg | Tyr | Lys | Asn | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Phe | Asp | Asp | Tyr | Leu | Ile | Pro | Thr | Ala | Glu | Phe | Glu | Lys | Ser | Arg | His | | |
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| Asn | Asp | Gln | Leu | Gln | Leu | Ala | Val | Gln | Thr | Asp | Ser | Gln | Ala | Tyr | Leu | | |
| | | | | 325 | | | | 330 | | | | | | 335 | | | |
| Gln | Ala | Arg | Met | Thr | Leu | Leu | Ala | Ser | Arg | Leu | Glu | Glu | Val | Asn | Ala | | |
| | | 340 | | | | | | 345 | | | | | 350 | | | | |
| Met | Ala | Leu | Ala | Gly | Asp | Leu | Pro | Asp | Val | Asp | Ile | Ser | Asp | Lys | Gly | | |
| | 355 | | | | | | 360 | | | | | 365 | | | | | |
| Val | Lys | Ile | Thr | Pro | Leu | Glu | Asn | Ser | Val | Pro | Ser | Gly | Val | Ser | Pro | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Phe | Ala | Gly | Leu | Val | Tyr | Gly | Met | Leu | Pro | His | Pro | Lys | Ile | Thr | Glu | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Ile | Leu | Glu | Glu | Val | Asp | Ser | Trp | Thr | Gly | Phe | Thr | Arg | His | Phe | Ala | | |
| | | | 405 | | | | | 410 | | | | | | 415 | | | |
| His | Leu | Lys | Asn | Asn | Asn | Val | Arg | Pro | Lys | Asp | Gly | Arg | Leu | Leu | Leu | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Thr | Thr | Ile | Leu | Ala | Asp | Gly | Ile | Asn | Leu | Gly | Leu | Thr | Lys | Met | Ala | | |
| | | 435 | | | | 440 | | | | | | 445 | | | | | |
| Glu | Ser | Cys | Pro | Gly | Ala | Thr | Arg | Ser | Ser | Leu | Glu | Gly | Ile | Gln | Ala | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Trp | Tyr | Ile | Arg | Asp | Glu | Thr | Tyr | Ser | Ala | Ala | Leu | Ala | Glu | Leu | Val | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Asn | Ala | Gln | Lys | Glu | Arg | Pro | Leu | Ala | Ala | Phe | Trp | Gly | Asp | Gly | Thr | | |
| | | | | 485 | | | | 490 | | | | | | 495 | | | |
| Thr | Ser | Ser | Ser | Asp | Gly | Gln | Asn | Phe | Arg | Val | Gly | Ser | His | Gly | Arg | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Tyr | Ala | Gly | Gln | Val | Asn | Leu | Lys | Tyr | Gly | Gln | Glu | Pro | Gly | Val | Gln | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Ile | Tyr | Thr | His | Ile | Ser | Asp | Gln | Tyr | Ser | Pro | Phe | Tyr | Ala | Lys | Val | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Ile | Ser | Arg | Val | Arg | Asp | Ser | Thr | His | Val | Leu | Asp | Gly | Leu | Leu | Tyr | | |
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| His | Glu | Ser | Asp | Leu | Glu | Ile | Thr | Glu | His | Tyr | Thr | Asp | Thr | Ala | Gly | | |
| | | | 565 | | | | | 570 | | | | | | 575 | | | |
| Phe | Thr | Glu | His | Val | Phe | Ala | Leu | Met | His | Leu | Leu | Gly | Phe | Ala | Phe | | |
| | | | 580 | | | | | 585 | | | | | 590 | | | | |
| Ala | Pro | Arg | Ile | Arg | Asp | Leu | His | Asp | Lys | Arg | Leu | Phe | Ile | His | Gly | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Lys | Ala | Glu | Arg | Tyr | Pro | Gly | Leu | Gln | Ser | Val | Ile | Ser | Thr | Thr | Cys | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Leu | Asn | Ile | Lys | Asp | Ile | Glu | Ser | His | Trp | Asp | Glu | Val | Leu | Arg | Leu | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | |
| Ala | Thr | Ser | Ile | Lys | Gln | Gly | Thr | Val | Thr | Ala | Ser | Leu | Met | Met | Lys | | |
| | | | | 645 | | | | 650 | | | | | | 655 | | | |

Lys Leu Ala Ser Tyr Pro Lys Gln Asn Gly Leu Ala Lys Ala Leu Arg
 660 665 670
 Glu Ile Gly Arg Ile Glu Arg Thr Leu Phe Met Leu Asp Trp Phe Arg
 675 680 685
 Asp Pro Gly Leu Arg Arg Arg Val Gln Ala Gly Leu Asn Lys Gly Glu
 690 695 700
 Ala Arg Asn Ala Leu Ala Arg Ala Val Phe Leu His Arg Leu Gly Glu
 705 710 715 720
 Ile Arg Asp Arg Gly Leu Glu Asn Gln Ser Tyr Arg Ala Ser Gly Leu
 725 730 735
 Thr Leu Leu Thr Ala Ala Ile Thr Leu Trp Asn Thr Val Tyr Ile Glu
 740 745 750
 Arg Ala Ile Glu Ser Leu Lys Arg Lys Gly Ile Pro Ile Asn Glu Gln
 755 760 765
 Leu Val Ser His Leu Ser Pro Leu Gly Trp Glu His Ile Asn Leu Ser
 770 775 780
 Gly Asp Tyr Val Trp Arg Asn Asn Leu Lys Leu Gly Ser Gly Lys Tyr
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<212> PRT

<213> Enterobacter cloacae

<400> 7834

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 Lys Ala Val Tyr Arg Lys Lys Phe Thr Arg Pro Lys Leu Ile Glu Phe
 35 40 45
 Leu Ala Thr Cys Pro Ala Thr Thr Ile Ala Met Glu Ala Cys Gly Gly
 50 55 60
 Ser His Phe Met Ala Arg Lys Leu Glu Glu Leu Gly His Phe Pro Lys
 65 70 75 80
 Leu Ile Ser Pro Gln Phe Val Arg Pro Phe Val Lys Ser Asn Lys Asn
 85 90 95
 Asp Phe Val Asp Ala Glu Ala Ile Cys Glu Ala Ala Ser Arg Pro Ser
 100 105 110
 Met Arg Phe Val Gln Pro Arg Thr Glu Ser Gln Gln Ala Met Arg Ala
 115 120 125
 Leu His Arg Val Arg Glu Ser Leu Val Gln Asp Lys Val Lys Thr Thr
 130 135 140
 Asn Gln Met His Ala Phe Leu Leu Glu Phe Gly Ile Ser Val Pro Arg
 145 150 155 160
 Gly Ala Ala Val Ile Ser Arg Leu Ser Thr Leu Leu Glu Asp Asn Ser
 165 170 175
 Leu Pro Leu Tyr Leu Ser Gln Leu Leu Leu Lys Leu Gln Gln His Tyr
 180 185 190
 His Tyr Leu Val Glu Gln Ile Lys Asp Leu Glu Ser Gln Leu Lys Arg
 195 200 205
 Lys Leu Asp Glu Asp Glu Ile Gly Gln Arg Leu Leu Ser Ile Pro Cys
 210 215 220
 Val Gly Thr Leu Thr Ala Ser Thr Ile Ser Thr Glu Ile Gly Asp Gly
 225 230 235 240
 Lys Gln Tyr Ala Ser Ser Arg Asp Phe Ala Ala Ala Thr Gly Leu Val
 245 250 255
 Pro Arg Gln Tyr Ser Thr Gly Gly Arg Thr Thr Leu Leu Gly Ile Ser
 260 265 270

Lys Arg Gly Asn Lys Lys Ile Arg Thr Leu Leu Val Gln Cys Ala Arg
 275 280 285
 Val Phe Ile Gln Lys Leu Glu His Gln Ser Gly Lys Leu Ala Asp Trp
 290 295 300
 Val Arg Asp Leu Leu Cys Arg Lys Ser Asn Phe Val Val Thr Cys Ala
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 Leu Ala Asn Lys Leu Ala Arg Ile Ala Trp Ala Leu Thr Ala Arg Gln
 325 330 335
 Gln Thr Tyr Val Ala
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<211> 99

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<213> Enterobacter cloacae

<400> 7835

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 Arg Ser Ile Arg Cys Val Tyr Arg Leu Leu Ile Thr Cys Ser Phe Pro
 35 40 45
 Phe Arg Arg Asp Ser Tyr Ser Gly Gln Pro Ser Val Ile His Ile Thr
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 Thr Ser Lys Gly Asp Ser Arg Leu Ile Arg Arg Pro Ser Val Ala Ile
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 Val Arg Ser Pro Asn Thr Cys Ala Thr Thr Val Phe Arg Ser Leu Ser
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<210> 7836

<211> 361

<212> PRT

<213> Enterobacter cloacae

<400> 7836

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 Met Thr Thr Gln Ser Ser Ser Ile Gln Tyr Ala Tyr Ala Leu Asp Gly
 35 40 45
 Glu Gly Thr Leu Thr His Ile Gly Ala Ala Leu Arg Ser His Thr Tyr
 50 55 60
 Thr Cys Pro Gly Cys Lys Ser Pro Leu Thr Pro Val Met Gly Glu Phe
 65 70 75 80
 Asn Ala Lys His Phe Arg His Ser Glu Glu Cys Cys Ala Leu Glu Thr
 85 90 95
 Tyr Leu His Lys Cys Gly Lys Glu Ala Phe Phe Tyr Arg Tyr Gln Gln
 100 105 110
 Ala Leu Ser Arg Glu Met Pro Ile Ser Leu Glu Leu Glu Arg Arg Val
 115 120 125
 Ala Cys Asn Gly Ser His Leu Ala Leu Val Arg Asp Glu Ala Arg Gln
 130 135 140
 Cys Val Lys Ser Val Pro Ala Arg Tyr Asn Leu Thr Gln Phe Phe Asp
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 Gln Ala Glu Leu Glu Lys His Asp Lys Val Thr Gly Leu Arg Pro Asp
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 Val Met Leu Tyr Asp Thr Thr Gly Glu Arg Arg Cys Tyr Val Glu Ile


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| Trp | His | Ala | Thr 20 | Pro | Gly | Asn | Ile | Arg 25 | Arg | Tyr | Val | Leu | Tyr 30 | Leu | Tyr |
| Ile | Glu | Thr 35 | Leu | Lys | Gln | Arg | Leu 40 | Asp | Ala | Ile | Asn | Gln 45 | Leu | Arg | Val |
| Asp | Arg 50 | Ala | Leu | Ala | Ala | Met 55 | Gly | Pro | Ala | Phe | Gln 60 | Gln | Val | Tyr | Ser |
| Leu 65 | Leu | Pro | Thr | Leu | Leu 70 | His | Tyr | His | His 75 | Pro | Leu | Met | Pro | Gly 80 | Tyr |
| Leu | Asp | Gly | Asn 85 | Val | Pro | Gln | Gly | Ile | Cys 90 | Leu | Phe | Thr | Pro | Asp 95 | Glu |
| Thr | Gln | Gln | His 100 | Tyr | Leu | Thr | Glu | Leu 105 | Glu | Leu | Tyr | Arg | Gly 110 | Met | Pro |
| Pro | Gln | Asp 115 | Ser | Pro | Lys | Gly | Glu 120 | Leu | Pro | Ile | Thr | Gly 125 | Val | Tyr | Ser |
| Met | Gly 130 | Ser | Thr | Ser | Ser | Val 135 | Gly | Gln | Ser | Cys | Ser 140 | Ser | Asp | Leu | Asp |
| Ile 145 | Trp | Val | Cys | His | Gln 150 | Ser | Trp | Leu | Asp 155 | Asn | Glu | Glu | Arg | Gln | Leu 160 |
| Leu | Gln | Arg | Lys | Cys 165 | Ser | Leu | Leu | Glu | Ser 170 | Trp | Ala | Ala | Ser | Leu 175 | Gly |
| Val | Glu | Val | Ser 180 | Phe | Phe | Leu | Ile | Asp 185 | Glu | Asn | Arg | Phe | Arg 190 | His | Asn |
| Glu | Ser | Gly 195 | Ser | Leu | Gly | Gly | Glu 200 | Asp | Cys | Gly | Ser | Thr 205 | Gln | His | Ile |
| Leu | Leu 210 | Leu | Asp | Glu | Phe | Tyr 215 | Arg | Thr | Ala | Val | Arg 220 | Leu | Ala | Gly | Lys |
| Arg 225 | Ile | Leu | Trp | Asn 230 | Met | Val | Pro | Cys | Asp 235 | Glu | Glu | Asn | Tyr | Asp 240 | |
| Asp | Tyr | Val | Met | Ser | Leu | Tyr | Ser | Gln | Gly | Val | Leu | Thr | Pro | Asn | Glu |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Trp | Leu | Asp | Leu | Gly | Gly | Leu | Ser | Ser | Leu | Ser | Ala | Glu | Glu | Tyr | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Ala | Ser | Leu | Trp | Gln | Leu | Tyr | Lys | Ser | Ile | Asp | Ser | Pro | Tyr | Lys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Val | Leu | Lys | Thr | Leu | Leu | Leu | Glu | Ala | Tyr | Ser | Trp | Glu | Tyr | Pro |
| | | 290 | | | | | 295 | | | | 300 | | | | |
| Thr | Pro | Arg | Leu | Leu | Ala | Lys | Asp | Ile | Lys | Gln | Arg | Leu | His | Asp | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Ile | Val | Ser | Tyr | Gly | Leu | Asp | Ala | Tyr | Cys | Met | Met | Leu | Glu | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Val | Thr | Glu | Tyr | Leu | Thr | Ala | Ile | Glu | Asp | Ala | Thr | Arg | Leu | Asp | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Val | Arg | Arg | Cys | Phe | Tyr | Leu | Lys | Val | Cys | Glu | Lys | Leu | Ser | Arg | Glu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Arg | Ala | Cys | Val | Gly | Trp | Arg | Arg | Glu | Val | Val | Ser | Gln | Leu | Val | Lys |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Glu | Trp | Gly | Trp | Asp | Glu | Ala | Arg | Leu | Ala | Met | Leu | Asp | Asn | Arg | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asn | Trp | Lys | Ile | Asp | Gln | Val | Arg | Glu | Ala | His | Asn | Glu | Leu | Leu | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Met | Met | Gln | Ser | Tyr | Arg | Asn | Leu | Ile | Arg | Phe | Ala | Arg | Arg | Asn |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asn | Leu | Ser | Val | Ser | Ala | Ser | Pro | Gln | Asp | Ile | Gly | Val | Leu | Thr | Arg |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Lys | Leu | Tyr | Ala | Ala | Phe | Glu | Ala | Leu | Pro | Gly | Lys | Val | Thr | Leu | Val |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Asn | Pro | Gln | Ile | Ser | Pro | Asp | Leu | Ser | Glu | Pro | Asn | Leu | Thr | Phe | Ile |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Tyr | Val | Pro | Pro | Gly | Arg | Ala | Asn | Arg | Thr | Gly | Trp | Tyr | Leu | Tyr | Asn |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Arg | Ala | Pro | Ser | Met | Asp | Ser | Ile | Ile | Ser | His | Gln | Pro | Leu | Glu | Tyr |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Asn | Arg | Tyr | Leu | Asn | Lys | Leu | Val | Ala | Trp | Ala | Trp | Phe | Asn | Gly | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Leu | Thr | Ser | Arg | Thr | Arg | Leu | Phe | Ile | Lys | Gly | Asn | Glu | Val | Val | Asp |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Leu | Ala | Lys | Leu | Gln | Glu | Met | Val | Ala | Asp | Val | Ser | His | His | Phe | Pro |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Leu | Arg | Leu | Pro | Ala | Pro | Thr | Pro | Lys | Ala | Leu | Tyr | Ser | Pro | Cys | Glu |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Ile | Arg | His | Leu | Ala | Ile | Ile | Val | Asn | Leu | Glu | Tyr | Asp | Pro | Thr | Ala |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Ala | Phe | Arg | Asn | Gln | Val | Val | His | Phe | Asp | Phe | Arg | Lys | Leu | Asp | Val |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ile | Ser | His | Asn | Lys | Leu | His | Gly | Leu | Ser | Val | Gln | Val | Glu | Thr |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Asn | His | Val | Lys | Leu | Pro | Gln | Val | Val | Asp | Gly | Phe | Ala | Ser | Glu | Gly |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Ile | Ile | Gln | Phe | Phe | Phe | Glu | Glu | Ser | Gly | Asp | Asn | Ala | Gly | Phe | Asn |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Ile | Tyr | Ile | Leu | Asp | Glu | Thr | Asn | Arg | Ala | Glu | Val | Tyr | His | His | Cys |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Glu | Gly | Ser | Lys | Glu | Glu | Leu | Val | Arg | Asp | Val | Ser | Arg | Phe | Tyr | Ser |
| | | | 805 | | | | | | 810 | | | | | 815 | |
| Ser | Ser | His | Asp | Arg | Phe | Thr | Tyr | Gly | Ser | Ser | Phe | Ile | Asn | Phe | Asn |
| | | | 820 | | | | | 825 | | | | | 830 | | |
| Leu | Pro | Gln | Phe | Tyr | Gln | Ile | Val | Asn | Val | Asp | Gly | Arg | Ala | Gln | Val |
| | | 835 | | | | | 840 | | | | | 845 | | | |
| Ile | Pro | Phe | Arg | Thr | Gln | Ala | Ile | Thr | Pro | Ala | Ala | Pro | Ala | Asn | Gln |
| | 850 | | | | | 855 | | | | | 860 | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7838

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Met | Glu | Gln | Met | Met | Gln | Phe | Ser | Lys | Met | His | Gly | Leu | Gly | Asn |
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| Asp | Phe | Met | Val | Val | Asp | Ala | Val | Thr | Gln | Asn | Val | Phe | Phe | Ser | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Leu | Ile | Arg | Arg | Leu | Ala | Asp | Arg | His | Val | Gly | Val | Gly | Phe | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Leu | Leu | Val | Val | Glu | Pro | Pro | Tyr | Asp | Pro | Asp | Leu | Asp | Phe | His |
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| Tyr | Arg | Ile | Phe | Asn | Ala | Asp | Gly | Ser | Glu | Val | Ser | Gln | Cys | Gly | Asn |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Gly | Ala | Arg | Cys | Phe | Ala | Arg | Phe | Val | Arg | Leu | Lys | Gly | Leu | Thr | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Arg | Asp | Ile | Arg | Val | Ser | Thr | Ala | Asn | Gly | Arg | Met | Val | Leu | Ser |
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| Val | Thr | Asp | Asp | Glu | Leu | Val | Arg | Val | Asn | Met | Gly | Glu | Pro | Asn | Phe |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Glu | Pro | Ser | Ala | Val | Pro | Phe | Arg | Ala | Asn | Lys | Ala | Glu | Lys | Thr | Tyr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Met | Arg | Ala | Ala | Glu | Gln | Thr | Val | Leu | Cys | Gly | Val | Val | Ser | Met |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Asn | Pro | His | Cys | Val | Ile | Gln | Val | Asp | Asp | Val | Gln | Thr | Ala | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Glu | Thr | Leu | Gly | Pro | Val | Leu | Glu | Ser | His | Glu | Arg | Phe | Pro | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
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| | | 210 | | | | 215 | | | | | 220 | | | | |
| Leu | Arg | Val | Tyr | Glu | Arg | Gly | Ala | Gly | Glu | Thr | Gln | Ala | Cys | Gly | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ala | Cys | Ala | Ala | Val | Ala | Val | Gly | Ile | Ser | Gln | Gly | Leu | Leu | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Glu | Val | Arg | Val | Glu | Leu | Pro | Gly | Gly | Arg | Leu | Asp | Ile | Ala | Trp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Lys | Gly | Ala | Gly | His | Pro | Leu | Tyr | Met | Thr | Gly | Pro | Ala | Thr | His | Val |
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| Pro | Leu | Gly | Gln | Ile | Ser | Ala | Leu | Thr | Phe | Asp | Leu | Asp | Asp | Thr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Asp | Asn | Arg | Pro | Val | Ile | Leu | Arg | Thr | Glu | Gln | Glu | Ser | Leu | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Val | Gln | Asn | Tyr | His | Pro | Ala | Leu | Lys | Thr | Met | Gln | Asn | Lys | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Gln | Lys | Leu | Arg | Gln | Ser | Leu | Arg | Glu | Thr | Glu | Pro | Glu | Ile | Tyr |
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| His | Asp | Val | Thr | Glu | Trp | Arg | Arg | Arg | Ala | Val | Glu | Gln | Ala | Met | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Ala | Gly | Leu | Ser | Ala | Gln | Asp | Ala | Ala | Thr | Gly | Ala | Glu | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Glu | Asn | Phe | Ala | Lys | Trp | Arg | Ser | Arg | Ile | Asp | Val | Pro | Gln | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | His | Asp | Thr | Leu | Ala | Lys | Leu | Ala | Glu | Lys | Trp | Pro | Leu | Val | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Thr | Asn | Gly | Asn | Ala | Gln | Pro | Glu | Leu | Phe | Gly | Leu | Gly | Asn | Tyr |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Phe | Gln | Phe | Val | Leu | Arg | Ala | Gly | Pro | His | Gly | Arg | Ser | Lys | Pro | Phe |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Asn | Asp | Met | Tyr | His | Leu | Ala | Ala | Glu | Lys | Leu | Asp | Leu | Pro | Leu | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Ile | Leu | His | Val | Gly | Asp | Asp | Leu | Thr | Thr | Asp | Val | Ala | Gly | Ala |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Ile | Arg | Cys | Gly | Met | Gln | Ala | Cys | Trp | Ile | Lys | Pro | Glu | Asn | Ala | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Met | Thr | Thr | Pro | Asp | Ser | Arg | Leu | Leu | Pro | His | Val | Glu | Ile | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
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<212> PRT

<213> Enterobacter cloacae

<400> 7840

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| Phe | Phe | Ala | Leu | Gly | Val | Pro | Val | Met | Leu | Ser | Ala | Phe | Gln | Leu | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asn | Asn | Arg | Leu | Thr | Arg | Leu | Glu | Ala | Glu | Glu | Ser | Gln | Pro | Leu | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Ala | Val | Trp | Val | Asp | Leu | Val | Glu | Pro | Asp | Asp | Asp | Glu | Arg | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Val | Gln | Ser | Glu | Leu | Gly | Gln | Ser | Leu | Ala | Thr | Arg | Pro | Glu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Asp | Ile | Glu | Ala | Ser | Ala | Arg | Phe | Phe | Glu | Asp | Glu | Asp | Gly | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
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<211> 308
<212> PRT
<213> Enterobacter cloacae
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| Pro | Pro | Met | Arg | Thr | Tyr | Leu | Gly | Trp 25 | Leu | Leu | Ala | Ala | Val | Ala | Leu |
| Pro | Leu | Thr | Ala | Tyr | Ala | Gln | Glu | Ala | Thr | Ile | Lys | Glu | Val | His | Asp |
| Lys | Pro | Ala | Val | Lys | Gly | Ser 55 | Ile | Ile | Ala | Asn | Met 60 | Leu | Gln | Glu | His |
| Asp 65 | Asn | Pro | Phe | Thr | Leu 70 | Tyr | Pro | Tyr | Asp | Thr 75 | Asn | Tyr | Val | Ile | Tyr 80 |
| Thr | Gln | Thr | Ser | Asp 85 | Leu | Asn | Lys | Glu | Ala 90 | Ile | Ser | Ser | Tyr | Asn 95 | Trp |
| Ser | Asp | Asn | Ala | Arg | Lys | Asp | Glu | Val 105 | Lys | Phe | Gln | Leu | Ser | Leu | Ala |
| Phe | Pro | Phe | Trp | Arg | Gly | Ile | Leu 120 | Gly | Pro | Asn | Ser | Val 125 | Leu | Gly | Ala |
| Ser | Tyr | Thr | Gln | Lys | Ser | Trp 135 | Trp | Gln | Leu | Ser | Asn 140 | Ser | Gly | Glu | Ser |
| Ser 145 | Pro | Phe | Arg | Glu | Thr 150 | Asn | Tyr | Glu | Pro | Gln 155 | Leu | Phe | Leu | Gly | Phe 160 |
| Ala | Thr | Asp | Tyr | Glu 165 | Phe | Ala | Gly | Trp | Thr 170 | Leu | Arg | Asp | Val | Glu | Val |
| Gly | Tyr | Asn | His | Asp | Ser | Asn | Gly | Arg | Ser | Asp | Pro | Thr | Ser | Arg | Ser |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 180 | | | | | 185 | | | | 190 | | | |
| Trp | Asn | Arg | Ile | Tyr | Thr | Arg | Leu | Met | Ala | Gln | Asn | Gly | Asn | Phe | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Glu | Val | Lys | Pro | Trp | Tyr | Val | Val | Gly | Ser | Thr | Asp | Asp | Asn | Pro |
| | | 210 | | | | | 215 | | | | | 220 | | | |
| Asp | Ile | Thr | Lys | Tyr | Met | Gly | Tyr | Tyr | Gln | Leu | Lys | Val | Gly | Tyr | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Gly | Asp | Ala | Val | Leu | Ser | Ala | Lys | Gly | Gln | Tyr | Asn | Trp | Asn | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Tyr | Gly | Gly | Ala | Glu | Leu | Gly | Leu | Ser | Tyr | Pro | Val | Thr | Lys | His |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Arg | Leu | Tyr | Thr | Gln | Val | Tyr | Ser | Gly | Tyr | Gly | Glu | Ser | Leu | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Tyr | Asn | Phe | Asn | Gln | Thr | Arg | Val | Gly | Val | Gly | Val | Met | Leu | Asn |
| | 290 | | | | | 295 | | | | | 300 | | | | |
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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ala | Tyr | Gly | Val | Asn | Val | Ala | Gln | Ala | Glu | Val | Leu | Asn | Gln | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Ala | Lys | Gln | Val | Leu | His | Glu | Thr | Phe | Gly | Tyr | Gln | Gln | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Pro | Gly | Gln | Glu | Thr | Ile | Glu | Thr | Val | Leu | Glu | Gly | Arg | Asp | |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Cys | Leu | Val | Val | Met | Pro | Thr | Gly | Gly | Gly | Lys | Ser | Leu | Cys | Tyr | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Val | Pro | Ala | Leu | Val | Leu | Asn | Gly | Leu | Thr | Val | Val | Val | Ser | Pro | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Ser | Leu | Met | Lys | Asp | Gln | Val | Asp | Gln | Leu | Leu | Ala | Asn | Gly | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Ala | Ala | Cys | Leu | Asn | Ser | Thr | Gln | Thr | Arg | Glu | Gln | Gln | Gln | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Met | Ala | Gly | Cys | Arg | Thr | Gly | Gln | Val | Arg | Leu | Leu | Tyr | Ile | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Glu | Arg | Leu | Met | Leu | Asp | Asn | Phe | Leu | Asp | His | Leu | Ala | His | Trp |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Asn | Pro | Val | Leu | Leu | Ala | Val | Asp | Glu | Ala | His | Cys | Ile | Ser | Gln | Trp |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Gly | His | Asp | Phe | Arg | Pro | Glu | Tyr | Ala | Ala | Leu | Gly | Gln | Leu | Arg | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Phe | Pro | Glu | Leu | Pro | Phe | Met | Ala | Leu | Thr | Ala | Thr | Ala | Asp | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Thr | Arg | Gln | Asp | Ile | Val | Arg | Leu | Leu | Gly | Leu | Asn | Asp | Pro | Tyr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Gln | Val | Ser | Ser | Phe | Asp | Arg | Pro | Asn | Ile | Arg | Tyr | Met | Leu | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Glu | Lys | Phe | Lys | Pro | Leu | Asp | Gln | Leu | Leu | Arg | Tyr | Val | Gln | Glu | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Gly | Lys | Ser | Gly | Ile | Ile | Tyr | Cys | Asn | Ser | Arg | Ala | Lys | Val | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asp | Thr | Ala | Ala | Arg | Leu | Gln | Asn | Arg | Gly | Phe | Ser | Ala | Ala | Ala | Tyr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
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<211> 157
<212> PRT
<213> Enterobacter cloacae
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| Thr | Arg | Glu | Asn | Ala | Phe | Ala | Ala | Phe | Ser | Met | Gly | Pro | Leu | Thr | Asp |
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| Phe | Trp | Arg | Gln | Arg | Glu | Glu | Asp | Glu | Phe | Met | Gly | Val | Gly | Glu | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Val | Arg | Phe | Val | Arg | Phe | Arg | Asp | Glu | Lys | Asn | Asp | Arg | Val | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Val | Cys | Pro | Gly | Arg | Ile | Glu | Ser | Tyr | Ile | Lys | Tyr | Ala | Glu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Tyr | Asp | Leu | Phe | His | Leu | Gly | Phe | Asp | Val | Leu | Ile | Ile | Asp | His |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
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| Arg | Gly | Gln | Gly | Leu | Ser | Gly | Arg | Met | Leu | Pro | Asp | Thr | His | Arg | Gly | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| His | Val | Asp | Asn | Phe | Ser | Asp | Tyr | Val | Asp | Asp | Leu | Ala | Ala | Phe | Trp | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Gln | Gln | Glu | Val | Gln | Pro | Gly | Pro | Trp | Arg | Lys | Arg | Tyr | Ile | Leu | Ala | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
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<210> 7844

<211> 153

<212> PRT

<213> Enterobacter cloacae

<400> 7844

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| Gly | Gln | Asp | Pro | Ala | Val | Asp | Phe | Thr | Ile | Asp | Ile | Ala | Val | Ala | Val | | |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | | | |
| Pro | Val | Val | Asp | Thr | Leu | Phe | Asp | Gly | His | Pro | Gln | Gly | Ile | Gly | Lys | | |
| | | 20 | | | | | | 25 | | | | 30 | | | | | |
| Ala | Met | Lys | Phe | Thr | Val | Val | His | Gly | Phe | Ile | Pro | Val | Phe | Arg | Asp | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Gly | Gly | Ser | Ile | Thr | Leu | Asn | Asn | Ser | Arg | Cys | Arg | Lys | Ala | Ala | Asn | | |
| | | 50 | | | | 55 | | | | | 60 | | | | | | |
| Ser | Cys | Phe | Cys | Val | Phe | Ser | Cys | Asp | Asp | Arg | Asn | Arg | Phe | Glu | Leu | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Thr | Gly | Asn | Leu | Tyr | Met | Lys | Asn | Val | Phe | Arg | Thr | Leu | Val | Val | Leu | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Val | Thr | Leu | Phe | Ser | Leu | Thr | Gly | Cys | Gly | Leu | Lys | Gly | Pro | Leu | Tyr | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Phe | Pro | Pro | Glu | Asp | Lys | Asn | Ala | Pro | Pro | Pro | Thr | Lys | Pro | Val | Gln | | |
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| Ser | Gly | Ile | Glu | Ser | Ser | Thr | Pro | Asp | Thr | Asn | Asp | Arg | Gly | Asn | Asn | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Gly | Gly | Pro | Thr | Gln | Val | Asn | Leu | | | | | | | | | | |
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<213> Enterobacter cloacae

<400> 7845

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| Arg | Tyr | Leu | Gly | Val | Glu | Arg | Gln | Leu | Ser | Pro | Ile | Thr | Leu | Leu | Asn | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Tyr | Gln | Arg | Gln | Leu | Asp | Ala | Ile | Met | Gln | Ile | Ala | Asp | Glu | Ile | Gly | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Leu | Lys | Ser | Trp | Gln | Gln | Cys | Asp | Ala | Ala | Thr | Val | Arg | Gly | Phe | Val | | |
| | | 50 | | | | 55 | | | | | 60 | | | | | | |
| Val | Arg | Ser | Arg | Lys | Lys | Asn | Leu | Ser | Pro | Ala | Ser | Leu | Ala | Leu | Arg | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Leu | Ser | Ala | Leu | Arg | Ser | Phe | Phe | Asp | Trp | Leu | Val | Ser | Gln | Gly | Gly | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Leu | Lys | Ala | Asn | Pro | Ala | Lys | Gly | Ile | Ala | Thr | Pro | Lys | Ala | Pro | Arg | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| His | Leu | Pro | Lys | Asn | Ile | Asp | Val | Asp | Asp | Val | Asn | Arg | Leu | Leu | Asp | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ile | Asp | Leu | Asn | Asp | Pro | Leu | Ala | Val | Arg | Asp | Arg | Ala | Met | Leu | Glu | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Met | Tyr | Gly | Ala | Gly | Leu | Arg | Leu | Ser | Glu | Leu | Val | Asn | Leu | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Lys | His | Leu | Asp | Leu | Glu | Ser | Gly | Glu | Val | Trp | Val | Met | Gly | Lys |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Gly | Ser | Lys | Glu | Arg | Arg | Leu | Pro | Ile | Gly | Arg | Asn | Ala | Val | Ser | Trp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Glu | His | Trp | Leu | Asp | Leu | Arg | Gly | Leu | Phe | Gly | Ala | Asp | Glu | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Leu | Phe | Leu | Ser | Lys | Leu | Gly | Lys | Arg | Ile | Ser | Ala | Arg | Asn | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Lys | Arg | Phe | Ala | Glu | Trp | Gly | Ile | Lys | Gln | Gly | Leu | Asn | Ser | His |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | His | Pro | His | Lys | Leu | Arg | His | Ser | Phe | Ala | Thr | His | Met | Leu | Glu |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Ser | Ser | Gly | Asp | Leu | Arg | Gly | Val | Gln | Glu | Leu | Leu | Gly | His | Ala | Asn |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Leu | Ser | Thr | Thr | Gln | Ile | Tyr | Thr | His | Leu | Asp | Phe | Gln | His | Leu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Val | Tyr | Asp | Ala | Ala | His | Pro | Arg | Ala | Lys | Arg | Gly | Lys | | |
| | 290 | | | | | 295 | | | | | 300 | | | | |

<210> 7846

<211> 739

<212> PRT

<213> Enterobacter cloacae

<400> 7846

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Gly | Phe | Gly | Glu | Trp | Lys | His | Leu | Pro | Ala | Arg | His | Asp | Val | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Pro | Met | Asp | Val | Ser | Tyr | Leu | Leu | Asp | Ser | Leu | Asn | Asp | Lys | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Asp | Ala | Val | Ala | Ala | Ser | Arg | Thr | Asn | Leu | Leu | Val | Leu | Ala | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Gly | Ser | Gly | Lys | Thr | Arg | Val | Leu | Val | His | Arg | Ile | Ala | Trp | Leu |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gln | Ser | Val | Glu | Asn | Cys | Ser | Pro | Tyr | Ser | Ile | Met | Ala | Val | Thr | Phe |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Thr | Asn | Lys | Ala | Ala | Glu | Met | Arg | His | Arg | Ile | Ala | Gln | Leu | Met | |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Gly | Thr | Ser | Gln | Gly | Gly | Met | Trp | Val | Gly | Thr | Phe | His | Gly | Leu | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Arg | Leu | Leu | Arg | Ala | His | His | Met | Asp | Ala | Asn | Leu | Pro | Gln | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Gln | Ile | Leu | Asp | Ser | Glu | Asp | Gln | Leu | Arg | Leu | Leu | Lys | Arg | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Lys | Ala | Met | Asn | Leu | Asp | Glu | Lys | Gln | Trp | Pro | Pro | Arg | Gln | Ala |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Met | Trp | Tyr | Ile | Asn | Gly | Gln | Lys | Asp | Glu | Gly | Leu | Arg | Pro | His | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Gln | Ser | Phe | Gly | Asn | Pro | Val | Glu | Gln | Thr | Trp | Gln | Asn | Val | Tyr |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Lys | Ala | Tyr | Gln | Glu | Ala | Cys | Asp | Arg | Ala | Gly | Leu | Val | Asp | Phe | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Leu | Leu | Leu | Arg | Ala | His | Glu | Leu | Trp | Leu | Asn | Lys | Pro | His | Ile |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gln | His | Tyr | Arg | Glu | Arg | Phe | Thr | Asn | Ile | Leu | Val | Asp | Glu | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | Asp | Thr | Asn | Asn | Ile | Gln | Tyr | Ala | Trp | Ile | Arg | Leu | Leu | Ala | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Thr | Gly | Lys | Val | Met | Ile | Val | Gly | Asp | Asp | Asp | Gln | Ser | Ile | Tyr |
| | | | 260 | | | | | 265 | | | | | 270 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Trp | Arg | Gly | Ala | Gln | Val | Glu | Asn | Ile | Gln | Arg | Phe | Leu | Asn | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Pro | Gly | Ala | Gln | Thr | Ile | Arg | Leu | Glu | Gln | Asn | Tyr | Arg | Ser | Thr |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Ser | Asn | Ile | Leu | Ser | Ala | Ala | Asn | Ala | Leu | Ile | Glu | Asn | Asn | Asn | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Arg | Leu | Gly | Lys | Lys | Leu | Trp | Thr | Asp | Gly | Val | Asp | Gly | Glu | Pro | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ser | Ile | Tyr | Cys | Ala | Phe | Asn | Glu | Leu | Asp | Glu | Ala | Arg | Phe | Val | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Arg | Ile | Lys | Thr | Trp | Gln | Glu | Asn | Gly | Gly | Ala | Leu | Glu | Gln | Cys |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Ile | Leu | Tyr | Arg | Ser | Asn | Ala | Gln | Ser | Arg | Val | Leu | Glu | Glu | Ala |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Leu | Leu | Gln | Val | Ser | Met | Pro | Tyr | Arg | Ile | Tyr | Gly | Gly | Met | Arg | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Phe | Glu | Arg | Gln | Glu | Ile | Lys | Asp | Ala | Leu | Ser | Tyr | Leu | Arg | Leu | Ile |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Asn | Arg | Asn | Asp | Asp | Ala | Ala | Phe | Glu | Arg | Val | Val | Asn | Thr | Pro |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Thr | Arg | Gly | Ile | Gly | Asp | Arg | Thr | Leu | Asp | Val | Val | Arg | Gln | Ala | Ser |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Arg | Asp | Arg | Gln | Leu | Thr | Leu | Trp | Gln | Ala | Cys | Arg | Glu | Leu | Leu | Gln |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Glu | Lys | Ala | Leu | Ala | Gly | Arg | Ala | Ala | Ser | Ala | Leu | Gln | Arg | Phe | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Glu | Leu | Ile | Asp | Ala | Leu | Ala | Gln | Glu | Thr | Ala | Asp | Met | Pro | Leu | His |
| | | | 485 | | | | | 490 | | | | | | 495 | |
| Val | Gln | Thr | Asp | Arg | Val | Ile | Lys | Asp | Ser | Gly | Leu | Arg | Thr | Met | Tyr |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Glu | Gln | Glu | Lys | Gly | Glu | Lys | Gly | Gln | Thr | Arg | Ile | Glu | Asn | Leu | Glu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Glu | Leu | Val | Thr | Ala | Thr | Arg | Gln | Phe | Ser | Tyr | Asn | Glu | Glu | Asp | Glu |
| | | 530 | | | | 535 | | | | | 540 | | | | |
| Asp | Leu | Met | Pro | Leu | Gln | Ala | Phe | Leu | Ser | His | Ala | Ala | Leu | Glu | Ala |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Gly | Glu | Gly | Gln | Ala | Asp | Thr | Trp | Gln | Asp | Ala | Val | Gln | Leu | Met | Thr |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Leu | His | Ser | Ala | Lys | Gly | Leu | Glu | Phe | Pro | Gln | Val | Phe | Ile | Val | Gly |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Met | Glu | Glu | Gly | Met | Phe | Pro | Ser | Gln | Met | Ser | Leu | Asp | Glu | Gly | Gly |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Arg | Leu | Glu | Glu | Glu | Arg | Arg | Leu | Ala | Tyr | Val | Gly | Val | Thr | Arg | Ala |
| | | 610 | | | | 615 | | | | | 620 | | | | |
| | | | | | | | | | | | | | | | |

<210> 7847
 <211> 217
 <212> PRT
 <213> Enterobacter cloacae

<400> 7847

```

Leu Thr Val Leu Phe Pro Arg Glu Leu Ile Met Leu Met Leu Phe Leu
1      5      10      15
Thr Val Ala Leu Val His Ile Val Ala Leu Met Ser Pro Gly Pro Asp
20      25      30
Phe Phe Phe Val Ser Gln Thr Ala Val Ser Arg Ser Arg Lys Glu Ala
35      40      45
Met Met Gly Val Leu Gly Ile Thr Met Gly Val Met Val Trp Ala Ala
50      55      60
Val Ala Leu Leu Gly Leu Asn Leu Ile Leu Ala Lys Met Ala Trp Leu
65      70      75      80
His Asn Ile Ile Met Val Gly Gly Gly Leu Tyr Leu Cys Trp Met Gly
85      90      95
Tyr Gln Met Leu Arg Gly Ala Leu Lys Lys Glu Glu Ser Lys Pro Glu
100     105     110
Glu Pro Lys Val Glu Leu Ala Thr Gly Gly Arg Ser Phe Val Lys Gly
115     120     125
Leu Leu Thr Asn Leu Ala Asn Pro Lys Ala Ile Ile Tyr Phe Gly Ser
130     135     140
Val Phe Ser Leu Phe Val Gly Asp Asn Val Gly Ala Gly Ala Arg Trp
145     150     155     160
Gly Ile Phe Leu Leu Ile Val Val Glu Thr Phe Ala Trp Phe Thr Val
165     170     175
Val Ala Ser Leu Phe Ala Leu Pro Ala Met Arg Arg Gly Tyr Gln Arg
180     185     190
Ile Ala Lys Trp Ile Asp Gly Phe Ala Gly Ala Leu Phe Ala Gly Phe
195     200     205
Gly Ile His Leu Ile Ile Ser Arg
210     215

```

<210> 7848
 <211> 241
 <212> PRT
 <213> Enterobacter cloacae

<400> 7848

```

Arg Val Tyr Pro Ser Met Lys Gln Pro Gly Glu Glu Leu Arg Glu Pro
1      5      10      15
Val Thr Glu Leu Asp Asp Ser Thr Val Val Asp Tyr Leu Leu His Asn
20      25      30
Pro Glu Phe Phe Ile Arg Asn Ala Arg Val Val Glu Arg Met Arg Val
35      40      45
Pro His Pro Val Arg Glu Thr Val Ser Leu Val Glu Trp His Met Ala
50      55      60
Arg Ser Arg Asn His Ile Asn Gln Leu Glu Glu Asn Met Thr Leu Leu
65      70      75      80
Met Glu Gln Ala Ser Asn Asn Glu Ser Leu Phe Tyr Arg Leu Leu His
85      90      95
Leu Gln Ala Arg Leu Ala Ser Ala His Ser Leu Glu Glu Phe Leu Asn
100     105     110
Arg Phe His Arg Trp Ala Arg Glu Leu Gly Leu Ala Gly Ala Thr Ile
115     120     125
Arg Leu Phe Pro Asp Arg Trp Arg Ile Gly Ala Pro Ser Gly Phe Thr
130     135     140
His Leu Ala Leu Ser Arg Gln Ala Phe Glu Pro Leu Arg Ile Gln Arg
145     150     155     160

```



```
<210> 7849
<211> 215
<212> PRT
<213> Enterobacter cloacae
```

```
<210> 7850
<211> 418
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 7850 | | | | | | | | | | | | | | | |
| Lys | Arg | Arg | Gln | Arg | Cys | Ala | Ala | Ala | Arg | Ile | Thr | Ile | Thr | Leu | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Trp | Glu | Ala | Ile | Met | Thr | Glu | His | Glu | Lys | Ser | Ser | Ala | Val | Val | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Thr | Arg | Glu | Thr | Val | Asp | Thr | Thr | Ser | Gln | Pro | Glu | Thr | Thr | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Thr | Val | Glu | Lys | Lys | Asn | Gly | Ser | Asn | Lys | Thr | Ser | Leu | Thr | Leu |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Ser Val Ile Ala Ile Ala Ile Ala Leu Ala Ala Gly Val Gly Leu Tyr | | |
| 65 | 70 | 75 |
| Gly Leu Val Lys Lys Gln Gly Thr Asn Gln Thr Ala Thr Ser Asp Ala | | |
| | 85 | 90 |
| Leu Val Asn Gln Ile Thr Ala Leu Gln Lys Ala Gln Glu Thr Gln Lys | | |
| | 100 | 105 |
| Ala Glu Leu Glu Gly Val Ile Lys Gln Gln Ala Ala Ala Leu Ala Asp | | |
| | 115 | 120 |
| Ala Asn Ser Lys Arg Glu Glu Leu Thr Lys Gln Leu Ser Glu Val Gln | | |
| | 130 | 135 |
| Glu Lys Val Ala Thr Ile Ser Gly Thr Asp Ala Lys Thr Trp Leu Leu | | |
| 145 | 150 | 155 |
| Ser Gln Ala Asp Phe Leu Val Lys Leu Ala Gly Arg Lys Leu Trp Ser | | |
| | 165 | 170 |
| Asp Gln Asp Val Thr Thr Ala Ala Ala Leu Leu Lys Ser Ala Asp Ala | | |
| | 180 | 185 |
| Ser Leu Ala Asp Met Asn Asp Pro Ser Leu Ile Asn Ala Arg Arg Ala | | |
| | 195 | 200 |
| Ile Thr Glu Asp Ile Ala Ser Leu Ser Ala Val Ser Gln Val Asp Tyr | | |
| | 210 | 215 |
| Asp Gly Ile Ile Leu Lys Val Asn Gln Leu Ser Asn Gln Ile Asp Asn | | |
| 225 | 230 | 235 |
| Leu Gln Leu Ala Asp Asn Asn Asp Asp Asp Ser Pro Met Asp Ser Asp | | |
| | 245 | 250 |
| Gly Thr Glu Leu Ser Ser Ser Leu Ser Glu Trp Arg Ile Asn Leu Gln | | |
| | 260 | 265 |
| Lys Ser Trp Gln Asn Phe Met Asp Ser Phe Ile Thr Ile Arg Arg Arg | | |
| | 275 | 280 |
| Asp Glu Thr Ala Val Pro Leu Leu Ala Pro Asn Gln Asp Val Tyr Leu | | |
| | 290 | 295 |
| Arg Glu Asn Ile Arg Ser Arg Leu Leu Val Ala Ala Gln Ala Val Pro | | |
| 305 | 310 | 315 |
| Arg His Gln Glu Glu Thr Tyr Lys Gln Ala Leu Asp Asn Val Ser Thr | | |
| | 325 | 330 |
| Trp Val Arg Ala Tyr Tyr Asp Thr Asn Asp Ala Thr Thr Thr Ala Phe | | |
| | 340 | 345 |
| Leu Glu Asp Ile Asp Lys Leu Ser Gln Gln Asn Ile Thr Met Asn Val | | |
| | 355 | 360 |
| Pro Asp Lys Leu Glu Ser Gln Pro Ile Leu Glu Lys Ile Met Gln Thr | | |
| | 370 | 375 |
| Arg Val Arg Asn Leu Leu Ala Gln Pro Gly Val Pro Ala Glu Arg Pro | | |
| 385 | 390 | 395 |
| Ala Glu Ala Pro Ala Ala Ala Pro Ala Pro Glu Ser Ala Pro Gln Gly | | |
| | 405 | 410 |
| | | 415 |
| Glu | | |

<210> 7851

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7851

| | |
|---|----|
| Leu Pro Leu Pro Arg Phe Leu Lys Trp His Ser Phe Ile Leu Lys His | |
| 1 | 5 |
| Lys Ile Asn Ile Leu Leu Thr Thr Arg Met Pro Leu Gln Met Ser Ala | |
| | 20 |
| Thr Leu Thr Ala Glu Glu Thr Leu Lys Leu Val Gly Glu Ile Phe Val | |
| | 35 |
| Tyr His Met Pro Phe Asn Arg Ala Leu Gly Leu Glu Leu Glu Arg Tyr | |
| | 40 |
| | 45 |

290

295

300

<210> 7853

<211> 252

<212> PRT

<213> Enterobacter cloacae

<400> 7853

```

Arg Arg Ala Pro Cys Met Ser Ile Leu Val Thr Arg Pro Ser Pro Ala
1      5      10      15
Gly Glu Gln Leu Val Ser Arg Leu Arg Ala Leu Gly Gln Val Ala Trp
      20      25      30
Ser Phe Pro Leu Ile Glu Phe Ser Pro Gly Arg Glu Leu Pro Glu Leu
      35      40      45
Ala Asp Gln Met Arg Leu Leu Gln Glu Gly Asp Leu Leu Phe Ala Leu
      50      55      60
Ser Gln His Ala Val Glu Phe Ala His Ala Gln Leu Gln Gln Gln Gly
65      70      75      80
Val Arg Trp Pro His Ala Pro Arg Tyr Phe Ala Ile Gly Arg Thr Thr
      85      90      95
Ala Leu Ala Leu His Thr Ala Ser Gly Ile Asp Val Arg Tyr Pro Leu
      100      105      110
Asp Arg Glu Ile Ser Glu Val Leu Leu Gln Leu Pro Glu Leu Gln Asn
      115      120      125
Ile Ala Gly Lys Arg Thr Leu Ile Leu Arg Gly Asn Gly Gly Arg Glu
      130      135      140
Leu Leu Gly Glu Thr Leu Arg Glu Arg Gly Ala Asp Val Thr Phe Val
145      150      155      160
Glu Cys Tyr Gln Arg Cys Ala Lys His Tyr Asp Gly Ala Glu Glu Ala
      165      170      175
Met Arg Trp His Ala Arg Gly Ile Asn Thr Leu Val Val Thr Ser Gly
      180      185      190
Glu Met Leu Gln Gln Leu Trp Ser Leu Ile Pro Leu Trp Tyr Arg Glu
      195      200      205
Asn Trp Leu Leu Arg Cys Arg Leu Leu Val Val Ser Glu Arg Leu Ala
      210      215      220
Asn His Ala Arg Glu Leu Gly Trp Gln Asp Ile Arg Ile Ala Glu Asn
225      230      235      240
Ala Asp Asn Asp Ala Leu Leu Arg Ala Leu Gln
      245      250

```

<210> 7854

<211> 120

<212> PRT

<213> Enterobacter cloacae

<400> 7854

```

Arg Tyr Thr Ala Ala Ile Thr Lys Asn Arg Asn Lys Thr Met Asn Asp
1      5      10      15
Ser Glu Phe His Arg Leu Ala Asp Thr Leu Trp Met Thr Ile Glu Glu
      20      25      30
Arg Ile Asp Asp Trp Asp Gly Asp Ser Asp Ile Asp Cys Glu Ile Asn
      35      40      45
Gly Gly Ile Leu Thr Leu Ser Phe Glu Asn Gly Ser Lys Ile Ile Ile
      50      55      60
Asn Arg Gln Glu Pro Leu His Gln Val Trp Leu Ala Ala Lys Gln Gly
65      70      75      80
Gly Tyr His Phe Asp Leu Lys Gly Asp Glu Trp Val Cys Asp Arg Ser
      85      90      95
Gly Glu Thr Phe Trp Asp Leu Leu Glu Gln Ala Ala Thr Ala Gln Ala
      100      105      110

```


Gly Glu Asp Val Ser Phe Arg
115 120

<210> 7855

<211> 322

<212> PRT

<213> Enterobacter cloacae

<400> 7855

Arg Leu Ile Met Thr Val Thr Ser Met Leu Asp Asn Val Leu Arg Ile
1 5 10 15
Ala Thr Arg Gln Ser Pro Leu Ala Leu Trp Gln Ala His Tyr Val Lys
20 25 30
Gln Arg Leu Glu Ala Cys His Thr Gly Leu Arg Val Glu Leu Val Pro
35 40 45
Met Val Thr Arg Gly Asp Val Ile Leu Asp Thr Pro Leu Ala Lys Val
50 55 60
Gly Gly Lys Gly Leu Phe Val Lys Glu Leu Glu Leu Ala Leu Leu Glu
65 70 75 80
Asn Arg Ala Asp Ile Ala Val His Ser Met Lys Asp Val Pro Val Glu
85 90 95
Phe Pro Glu Gly Leu Gly Leu Val Thr Ile Cys Glu Arg Glu Asp Pro
100 105 110
Arg Asp Ala Phe Val Ser Asn Arg Tyr Asp Ser Leu Asp Ala Leu Pro
115 120 125
Ala Gly Ser Val Val Gly Thr Ser Ser Leu Arg Arg Gln Cys Gln Leu
130 135 140
Ala Glu Arg Arg Pro Asp Leu Val Ile Arg Ser Leu Arg Gly Asn Val
145 150 155 160
Gly Thr Arg Leu Gly Lys Leu Asp Asn Gly Asp Tyr Asp Ala Ile Ile
165 170 175
Leu Ala Val Ala Gly Leu Lys Arg Leu Gly Leu Glu Glu Arg Ile Arg
180 185 190
Val Ala Leu Pro Pro Glu Leu Ser Leu Pro Ala Val Gly Gln Gly Ala
195 200 205
Val Gly Ile Glu Cys Arg Leu Asp Asp Val Arg Thr Gln Ala Leu Leu
210 215 220
Ala Pro Leu Asn His Asp Asp Thr Ala Val Arg Val Lys Ala Glu Arg
225 230 235 240
Ala Met Asn Thr Arg Leu Glu Gly Gly Cys Gln Val Pro Ile Gly Ser
245 250 255
Tyr Ala Glu Leu Thr Asp Gly Glu Leu Trp Leu Arg Ala Leu Val Gly
260 265 270
Ala Pro Asp Gly Ser His Met Val Arg Gly Glu Arg Arg Gly Lys Pro
275 280 285
Gln Asp Ala Glu Ala Leu Gly Val Ser Leu Ala Glu Glu Leu Leu Asn
290 295 300
Asn Gly Ala Arg Glu Ile Leu Ala Glu Val Tyr Asn Gly Glu Pro Pro
305 310 315 320
Ala

<210> 7856

<211> 408

<212> PRT

<213> Enterobacter cloacae

<400> 7856

Lys Arg Ala Ala Arg Arg Val Met Met Leu Lys Val Phe Leu Leu Phe
1 5 10 15
Ile Leu Leu Ile Ala Gly Ile Val Leu Gly Pro Met Leu Ala Gly His


```
<210> 7857
<211> 408
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asp | Ile | Val | Met | Asn | Ser | Leu | Leu | Tyr | Ala | Leu | Phe | Glu | Ala | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Cys | Tyr | Arg | Trp | Leu | Arg | Leu | Leu | Ala | Cys | Ala | Phe | Ile | Phe | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Gly | Asn | Gly | Leu | Thr | Gln | Val | Val | Val | Phe | Gly | Leu | Leu | Leu |


```
<210> 7858
<211> 1027
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Val | Asn | Asn | Ser | Thr | Ser | His | Ser | Leu | Ala | Val | Lys | Thr | Pro | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Arg | Leu | Tyr | Leu | Ala | Leu | Phe | Ser | Ala | Pro | Leu | Leu | Leu | Phe | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Pro | Ala | Asp | Ile | Ala | Arg | Ala | Ala | Asp | Ala | Phe | Phe | Asp | Gly | Asp | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Ile | Thr | Glu | Thr | Leu | Gly | Tyr | Thr | Gly | Asp | Val | Tyr | Val | Gly | Arg |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Asn Gln Arg Gly Asn Leu Leu Ile Asp Asn Gly Lys Ile Thr Ala Tyr | | |
| 65 | 70 | 75 |
| Asn Ile Asn Ile Gly Arg Leu Phe Asp Gly Lys Ile Tyr Glu Ser Val | | 80 |
| | 85 | 90 |
| Val Thr Val Arg Gly Pro Asp Ala Glu Leu Asn Ala Val Asn Asp Arg | | 95 |
| | 100 | 105 |
| Tyr Val Leu Arg Gly Asp Leu Asn Leu Gly Leu Gly Thr Leu Arg Val | | 110 |
| | 115 | 120 |
| Glu Glu Gly Ala Leu Ala Ser Ala Lys Glu Ile Val Val Gly Thr Thr | | 125 |
| | 130 | 135 |
| Arg Gly Tyr Asp Ser His Leu Ile Ala Thr Gly Ala Gly Ser Arg Val | | 140 |
| 145 | 150 | 155 |
| Thr Ser Asn Phe Leu Ser Val Gly Thr Asp Leu Gly Ala Arg Ser Thr | | 160 |
| | 165 | 170 |
| Leu Ala Ile Glu Asp Gly Ala Ala Leu Asn Thr Ala Tyr Asp Ala Arg | | 175 |
| | 180 | 185 |
| Ile Gly Asn Gly Thr Gly Pro Gly Glu Thr Asp Thr Leu Ser Pro Lys | | 190 |
| | 195 | 200 |
| Ala Thr Val Thr Gly Ser Gly Ser Gln Trp Asn Val Gly Arg Thr Leu | | 205 |
| 210 | 215 | 220 |
| Thr Leu Tyr Gly Asp Leu Asp Val Leu Asn Gly Gly Thr Val Asn Val | | 225 |
| | 230 | 235 |
| Gly Gly Val Gln Val Ala Gly Val Ser Gly Ala Gly Lys Thr Ala Glu | | 240 |
| | 245 | 250 |
| Leu Val Ile Ala Gly Glu Asp Ser Arg Phe Thr Ser Gly Ser Ser Val | | 255 |
| | 260 | 265 |
| Ser Val Gly Asp Tyr Gly Asn Gly Val Leu Ser Val Ile Asp Gly Gly | | 270 |
| | 275 | 280 |
| Ser Phe Ser Ala Gly Ser Asn Ala Leu Ile Val Gly Thr Ser Gly Ser | | 285 |
| | 290 | 295 |
| Gly Ser Asn Arg Gly Ala Leu Ile Ile Gly Ser Arg Gly Asn Met Asp | | 300 |
| 305 | 310 | 315 |
| Thr Gly Thr Gly Leu Thr Glu Pro Thr Leu Gly Thr Ala Gly Gly Ala | | 320 |
| | 325 | 330 |
| Gly Thr Leu Asp Ala Lys Thr Ala Ile Ser Leu Arg Gly Gly Leu Phe | | 335 |
| | 340 | 345 |
| Gly Ser Tyr Val Tyr Phe Asn His Thr Asp Gly Asn Tyr Ile Phe Ser | | 350 |
| | 355 | 360 |
| Asn Thr Met Ser Gly Glu Gly Asp Val Ile Asn Thr Ser Gly Gln Thr | | 365 |
| | 370 | 375 |
| Thr Leu Asn Gly Asp Leu Ser Ala Leu Lys Ala Asn Val Thr Ala Arg | | 380 |
| 385 | 390 | 395 |
| Gly Gly Lys Val Ile Ile Ala Ser Asn Ile Asn Thr Gln Pro Glu Asp | | 400 |
| | 405 | 410 |
| Asp Ile Phe Asp Val Gln Thr Leu Ser Ala Glu Asn Gly Gly Thr Leu | | 415 |
| | 420 | 425 |
| Ile Leu Asn Ala Thr Ala Gly Ser Asp Val Ser Asn Gly Val Gly Tyr | | 430 |
| | 435 | 440 |
| Ser Ser Ala Ala Ser Ile Lys Ser Gly Gly Thr Leu Gly Gly Asn Gly | | 445 |
| | 450 | 455 |
| Thr Leu Gly Gln Thr Glu Ile Leu Ser Gly Gly His Ile Ser Pro Gly | | 460 |
| 465 | 470 | 475 |
| Asp Gly Thr Ile Gly Thr Leu Thr Leu Lys Arg Tyr Leu Asn Phe Ile | | 480 |
| | 485 | 490 |
| Gly Glu Ser Phe Tyr Asp Val Asp Ile Ala Gly Asp Gly Arg Ser Asp | | 495 |
| | 500 | 505 |
| Gln Leu Leu Val Ser Gly Lys Thr Thr Ile Ser Asn Gln Ala Lys Val | | 510 |
| | 515 | 520 |
| Gln Val Thr Ala Leu Asp Pro Gln Thr Ser Tyr Lys Thr Gly Gln Ser | | 525 |
| | 530 | 535 |
| | | 540 |

[illegible]


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<210> 7859
<211> 273
<212> PRT
<213> Enterobacter cloacae
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| Pro 1 | Gly | Gly | Ser | Pro 5 | Pro | Phe | Phe | Arg | Asp 10 | Glu | Lys | Asn | Ala | Ser 15 | Ala |
| Arg | Val | Arg | Lys 20 | Glu | Pro | Arg | Met | Ser 25 | Asp | Gln | Thr | Leu | Lys 30 | Ala | Thr |
| Arg | Gln | Gln 35 | Ser | Leu | Ile | Thr | Leu 40 | Leu | Ser | Gln | Ser | Asp 45 | Trp | Leu | Thr |
| Thr | Glu 50 | Val | Leu | Ala | Glu | Lys 55 | Leu | Ser | Val | Ser | Lys 60 | Glu | Thr | Ile | Arg |
| Arg 65 | Asp | Leu | Lys | Ser | Leu 70 | Gln | Gln | Gln | Gly | Lys 75 | Leu | Leu | Arg | Gln | His 80 |
| Gly | Arg | Ala | Arg | Leu 85 | Ile | His | Pro | Asp 90 | Ser | Arg | Asp | Ser | Gly 95 | Glu | Pro |
| Phe | Gly | Ala 100 | Arg | Leu | Lys | Ser | His 105 | Tyr | Ala | Asp | Lys | Ala 110 | Asp | Ile | Ala |
| Arg | His | Ala 115 | Leu | Gly | Trp | Ile | Ser 120 | Glu | Gly | Met | Thr | Ile 125 | Ala | Leu | Asp |
| Ala | Ser 130 | Ser | Thr | Cys | Phe | His 135 | Leu | Ala | Arg | Gln | Leu 140 | Pro | Asp | Ile | Asp |
| Leu 145 | Thr | Val | Phe | Thr | Asn 150 | Ser | Leu | Pro | Val | Cys 155 | His | Glu | Met | Ala | Lys 160 |
| Arg | Glu | Arg | Ile 165 | Thr | Leu | Ile | Cys | Ser | Gly 170 | Gly | Thr | Leu | Glu | Arg 175 | Lys |
| Tyr | Arg | Cys | Tyr 180 | Val | Asn | Pro | Ala | Leu 185 | Val | Thr | Gln | Leu | Lys 190 | Gly | Leu |
| Glu | Ile | Asp 195 | Leu | Phe | Ile | Phe | Ser 200 | Cys | Glu | Gly | Val 205 | Asp | Glu | His | Gly |
| Val | Leu 210 | Trp | Asp | Pro | Ser | Glu 215 | His | Asn | Ala | Gly | Phe 220 | Lys | Ala | Leu | Leu |
| Leu 225 | Asn | Arg | Ala | Ser | Gln 230 | Ser | Leu | Leu | Leu | Ile 235 | Asp | Lys | Ser | Lys | Phe 240 |
| Met | Arg | Ala | Ser 245 | Glu | Val | Lys | Ile | Gly | Gln | Leu 250 | Ser | Gln | Val | Thr 255 | Gln |
| Ile | Ile | Gln | Ser 260 | Asp | Lys | Arg | Gln | Ala 265 | Ala | Arg | Asp | Gly | Leu 270 | Thr | Arg |

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<210> 7860
<211> 116
<212> PRT
<213> Enterobacter cloacae
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<220>
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<221> UNSURE
<222> (54)

<400> 7860

Leu Leu Arg Asn Ala Gly Arg Val Arg Arg Arg Arg His Pro Ala Gly
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 Lys Ala Ala Arg Ala Phe Val Leu Leu Arg Gly Arg Phe Leu Phe Ala
 20 25 30
 Asp Gln Thr Asn Leu Gln Val Ala Arg Leu Met Gln Arg Val His Tyr
 35 40 45
 Leu His Xaa Pro Xaa Xaa Gly Phe Ser Ile Ile Asp Gly Phe Ile Arg
 50 55 60
 Ala Glu Glu Asp Gly Gly Val Phe Leu Ala Ala Gly Glu Leu Val Gln
 65 70 75 80
 Arg Arg Asn Asn Arg Gly Ile Arg Tyr Arg Ile Val Ala Gln Glu His
 85 90 95
 Gly Leu Met Ala Leu His Leu Phe Ile Thr Arg Arg Gln Glu Ala Glu
 100 105 110
 Lys Val Val
 115

<210> 7861

<211> 671

<212> PRT

<213> Enterobacter cloacae

<400> 7861

Ala Pro Leu Arg Arg Gln Thr Arg Glu Gln Ser Leu Arg His Val Arg
 1 5 10 15
 Cys Asp Phe Thr Leu Leu Arg Met Asn Met Leu Asn Thr Arg Phe Ser
 20 25 30
 Val Ser Leu Ile Val Ile Gly Trp Leu Cys Leu Ser Ala Ser Leu Cys
 35 40 45
 Ala Gln Pro Leu Ser Phe Met Ala Pro Glu Glu Arg Pro Gln Leu Glu
 50 55 60
 Ala Ser Lys Pro Trp Pro Glu Asn Gln Phe Leu Val Leu Ala Tyr His
 65 70 75 80
 Asp Val Glu Asp Asp Ala Ala Asp Gln Arg Tyr Leu Ser Val Arg Thr
 85 90 95
 Ser Ala Leu Asn Glu Gln Ile Ser Trp Leu Leu His Asn Gly Tyr His
 100 105 110
 Ala Ile Ser Val Gln Asp Ile Leu Asp Ala His Glu Gly Lys Lys Ala
 115 120 125
 Leu Pro Pro Lys Ala Val Leu Leu Ser Phe Asp Asp Gly Tyr Ser Ser
 130 135 140
 Phe Tyr Thr Arg Val Trp Pro Leu Leu Gln Ala Trp Asn Val Pro Ala
 145 150 155 160
 Leu Trp Ala Pro Val Gly Ser Trp Val Asp Thr Pro Ala Asn Gln Lys
 165 170 175
 Val Asn Phe Gly Leu Met Thr Pro Arg Asp Arg Phe Ala Thr Trp
 180 185 190
 Asp Met Val Arg Glu Leu Ser Gln Ser Pro Leu Ile Glu Ile Gly Ser
 195 200 205
 His Thr Trp Ala Ser His Tyr Gly Ile Pro Ala Asn Pro Gln Gly Ser
 210 215 220
 Arg Glu Pro Ala Ile Ala Asn Arg Phe Phe Asp Asn Ala Thr Gly His
 225 230 235 240
 Tyr Glu Thr Asp Glu His Phe Asn Gln Arg Ile Ala Ala Asp Val Arg
 245 250 255
 Lys Val Thr Asp Lys Ile Thr Gln Val Thr Gly Lys Ala Pro Arg Ala
 260 265 270
 Trp Val Trp Pro Tyr Gly Ala Ala Asn Gly Thr Ser Leu Ala Ile Ala
 275 280 285

Gln Lys Gln Gly Tyr Gln Leu Ala Phe Thr Leu Glu Asp Gly Leu Ala
 290 295 300
 Asn Val Arg Asp Leu Gly Asn Ile Pro Arg Leu Leu Ile Ala Gly Asn
 305 310 315 320
 Pro Ser Ile Lys Thr Phe Ala Asn Thr Val Ser Arg Val Gln Glu Phe
 325 330 335
 Glu Pro Val Arg Val Met His Val Asp Leu Asp Tyr Val Tyr Asp Pro
 340 345 350
 Asp Pro Ala Gln Gln Thr Lys Asn Ile Asn Lys Leu Val Gln Arg Val
 355 360 365
 Tyr Asp Met Lys Ile Ser His Val Phe Leu Gln Ala Phe Ser Asp Pro
 370 375 380
 Arg Gly Asp Gly Arg Ile Ser Ala Leu Tyr Phe Pro Asn Arg Arg Leu
 385 390 395 400
 Pro Val Arg Ala Asp Leu Phe Asn Phe Val Ala Trp Gln Leu Gln Thr
 405 410 415
 Arg Ala Gly Val Lys Val Phe Ala Trp Met Pro Val Leu Ser Phe Asp
 420 425 430
 Leu Ser Pro Ala Leu Pro Arg Val Gln Arg Arg Glu Arg Gln Thr Gly
 435 440 445
 Glu Leu Thr Val Ala Ala Glu Pro Tyr Ile Arg Leu Ser Pro Trp Ser
 450 455 460
 Pro Gln Val Arg Gln Gln Val Thr Glu Ile Tyr Glu Asp Leu Ala Arg
 465 470 475 480
 Tyr Ala Ser Phe Asn Gly Ile Leu Phe His Asp Asp Ala Val Leu Thr
 485 490 495
 Asp Val Asp Asp Ala Gly Gln Asp Thr Thr Arg Gln Lys Ser Gln Arg
 500 505 510
 Leu Ile Gly Phe Thr Arg Thr Leu Ser Gln Ala Val Lys Asn Ile Arg
 515 520 525
 Gly Pro Gln Ile Lys Thr Ala Arg Asn Met Phe Ala Leu Pro Ile Leu
 530 535 540
 Glu Pro Glu Ser Glu Ala Trp Phe Ala Gln Asn Leu Asp Asp Phe Leu
 545 550 555 560
 Ala Ala Tyr Asp Trp Thr Val Pro Met Ala Met Pro Leu Met Glu Ser
 565 570 575
 Val Pro Ala Glu Glu Ser Asn Ala Trp Leu Thr Arg Leu Val Lys Ala
 580 585 590
 Val Ala Glu Arg Pro Gly Ala Leu Asn Lys Thr Ile Phe Glu Leu Gln
 595 600 605
 Ala Arg Asp Trp Ala Gln Lys Pro Gln Arg Ala Val Ala Asp Gly Arg
 610 615 620
 Leu Val Glu Trp Met Arg Val Leu Gln Leu Asn Gly Ile Lys Asn Tyr
 625 630 635 640
 Gly Tyr Tyr Pro Asp Asp Phe Leu Asn Asn Gln Pro Asp Ile Ser Arg
 645 650 655
 Ile Arg Pro Glu Phe Ser Ser Tyr Trp Tyr Pro Asp Asn Asp
 660 665 670

<210> 7862

<211> 149

<212> PRT

<213> Enterobacter cloacae

<400> 7862

Arg Glu His Ser Met Asn Glu Ser Thr Leu Ile Leu Thr Glu His Arg
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 Leu Ala Pro Arg Leu Phe Asp Ala Ala Leu Thr Leu Ile Ala Trp Gly
 20 25 30
 Gly Phe Leu Phe Phe Leu Tyr Ala Arg Leu Trp Met Gln Leu Thr Glu
 35 40 45

Glu Gly Asp His Arg Trp Asn Ala Ile Ile Ala Ser Phe Asn Thr Val
 50 55 60
 Leu Val Tyr Leu Leu Ile Ala Ala Phe Asn Gly Trp Leu Leu Ile Leu
 65 70 75 80
 Trp Tyr Gln Tyr Asn Arg Arg Arg Ala His Val Arg Arg Arg His Pro
 85 90 95
 Glu Met Leu Arg His Asp Glu Leu Ala Gln Ser Phe Asn Val Thr Pro
 100 105 110
 Gln Ile Met Ser Glu Met Ser Gln Tyr Asn Leu Leu Thr Val Tyr His
 115 120 125
 Asp Gln Ile Gly Arg Ile Ile Asp Leu Lys Ile Ser Glu Gln Gln Asp
 130 135 140
 Glu Lys Glu Glu
 145

<210> 7863

<211> 404

<212> PRT

<213> Enterobacter cloacae

<400> 7863

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 20 25 30
 Ile Leu Phe Ser Leu Ser Ser Arg His Arg Met Lys Thr Leu Phe Arg
 35 40 45
 Lys Phe Thr Asp Lys Lys Gly Asp Ile Met Ser Trp His Pro Tyr Thr
 50 55 60
 Gly Arg Tyr Glu Asn Met Gln Tyr Arg Tyr Cys Gly Lys Ser Gly Leu
 65 70 75 80
 Arg Leu Pro Ala Leu Ser Leu Gly Leu Trp His Ser Phe Gly His Val
 85 90 95
 Gln Pro Leu Asp Ser Gln Arg Ala Leu Leu Arg Lys Ala Phe Asp Leu
 100 105 110
 Gly Ile Thr His Phe Asp Leu Ala Asn Asn Tyr Gly Pro Pro Pro Gly
 115 120 125
 Ser Ala Glu Glu Asn Phe Gly Arg Leu Leu Arg Glu Asp Phe Ala Gly
 130 135 140
 Tyr Arg Asp Glu Leu Ile Ile Ser Thr Lys Ala Gly Tyr Asp Met Trp
 145 150 155 160
 Pro Gly Pro Tyr Gly Ser Gly Gly Ser Arg Lys Tyr Leu Leu Ala Ser
 165 170 175
 Leu Asp Gln Ser Leu Asn Arg Met Gly Val Glu Tyr Val Asp Ile Phe
 180 185 190
 Tyr Ser His Arg Val Asp Glu Asn Thr Pro Met Glu Glu Thr Ala Ala
 195 200 205
 Ala Leu Ala His Ala Val Gln Ser Gly Lys Ala Leu Tyr Val Gly Ile
 210 215 220
 Ser Ser Tyr Ser Thr Glu Arg Thr Ala Ala Met Thr Lys Leu Leu Arg
 225 230 235 240
 Glu Trp Lys Ile Pro Leu Leu Ile His Gln Pro Ser Tyr Asn Leu Leu
 245 250 255
 Asn Arg Trp Val Asp Lys Thr Gly Leu Leu Asp Ala Leu Glu Lys Asn
 260 265 270
 Gly Thr Gly Cys Ile Ala Phe Thr Pro Leu Ala Gln Gly Leu Leu Thr
 275 280 285
 Gly Lys Tyr Leu Asn Gly Ile Pro Asp Gly Ser Arg Met Gln Arg Glu
 290 295 300
 Gly Lys Lys Val Arg Gly Leu Thr Glu Lys Met Leu Thr Glu Ala Asn
 305 310 315 320


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<210> 7864
<211> 808
<212> PRT
<213> Enterobacter cloacae
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|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> | 7864 | | | | | | | | | | | | | | |
| Leu | His | Tyr | Val | Ile | Leu | Leu | Ser | His | His | Asn | Ile | Ile | Val | Pro | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Thr | Ala | Pro | Pro | Val | Leu | Val | Gln | Ala | Asp | Glu | Ser | Val | Tyr | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| His | Gln | Ile | Gln | Gln | Ala | Arg | Asn | Gly | Asn | Tyr | Ala | Leu | Phe | Leu | Asp |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Tyr | Leu | Gln | Arg | Tyr | Glu | Gln | Gln | His | Ala | Leu | Thr | Pro | Gly | Gln | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Asp | Trp | Leu | Gln | Val | Ala | Ser | Trp | Ala | Gly | Arg | Asp | Asp | Glu | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ile | Arg | Val | Trp | Gln | Arg | Tyr | Gly | Ile | Tyr | Met | Pro | Leu | Pro | Ala | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ile | Ala | Ala | Val | Ala | Gln | Ser | Arg | Arg | Asn | Gln | Lys | Ala | Trp | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ala | Leu | Ser | Leu | Trp | Lys | Glu | Ala | Leu | Ser | Leu | Ala | Pro | Asp | Asn |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asp | Asp | Tyr | Arg | Ile | Gly | Tyr | Val | Lys | Thr | Leu | Ala | Asp | Ala | Ser | Lys |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Arg | Leu | Ala | Leu | Ser | Glu | Ala | Arg | Gln | Leu | Val | Lys | Asp | Asn | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Ser | Pro | Ala | His | Leu | Glu | Thr | Leu | Ser | Tyr | Val | Trp | Met | Arg | Gln | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Lys | Asn | Arg | Asp | Arg | Leu | Leu | Ala | Asp | Met | Arg | Ala | Leu | Ser | Ala | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Gly | Asn | Glu | Ala | Leu | Leu | Arg | Glu | Thr | Ile | Asp | Ala | Leu | Thr | Asp |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Asn | Arg | Val | Ser | Thr | Pro | Ala | Leu | Trp | Leu | Ser | Gln | Asn | Ala | Ala | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Pro | Ala | Glu | Arg | Arg | Arg | Leu | Glu | Arg | Asn | Ala | Ala | Ala | Glu | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Val | Arg | Leu | Ala | Asp | Val | Pro | Gly | Arg | Thr | Glu | Lys | Glu | Arg | Leu | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Ala | Gln | Asn | Ala | Leu | Asp | Arg | Tyr | His | Ala | Leu | Leu | Ser | Arg | Trp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Asn | Asp | Pro | Gln | Ala | Ala | Glu | Asp | Val | Ile | Leu | Ala | Arg | Ile | Asp |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Arg | Leu | Gly | Ala | Leu | Tyr | Ala | Gln | Gly | Asn | Tyr | Arg | Gln | Val | Ile | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Glu | Tyr | Glu | Ser | Leu | Thr | Ala | Ala | Gln | His | Pro | Val | Pro | Asp | Trp | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Ile | Gly | Trp | Val | Ile | Ser | Ala | Tyr | Leu | Gln | Glu | Lys | Asn | Thr | Val | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Phe | Ser | Leu | Val | Gln | Arg | Tyr | Pro | His | Tyr | Ala | Ser | Asp | Pro | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Glu | Glu | His | Ala | Leu | Phe | Tyr | Ala | Trp | Leu | Asp | Thr | Gly | Gln | Tyr |
| | | 355 | | | | | 360 | | | | 365 | | | | |
| Gln | Ala | Ala | Arg | Arg | Tyr | Val | Glu | Arg | Glu | Thr | Arg | Ser | Val | Pro | Trp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Thr | Arg | Tyr | Asp | Phe | Gly | Ser | Pro | Ala | Ala | Gln | Pro | Asn | Asp | Arg | Trp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Thr | Gly | Gln | Ser | Leu | Lys | Phe | Asn | Tyr | Leu | Leu | Ala | Thr | Asn | Ala |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Leu | Pro | Glu | Ala | Glu | Lys | Leu | Ser | Tyr | Arg | Leu | Ala | Ser | Thr | Ala | Pro |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Gly | Asn | Gln | Gly | Leu | Gln | Ile | Asp | Tyr | Ala | Ala | Leu | Leu | Gln | Ala | Arg |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Gly | Leu | Pro | Arg | Ala | Ala | Glu | Gln | Lys | Leu | Lys | Arg | Ala | Glu | Ala | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Glu | Pro | Thr | Asn | Leu | Glu | Leu | Glu | Lys | Gln | Gln | Ala | Tyr | Val | Ala | Met |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asp | Leu | Gln | Glu | Trp | Arg | Gln | Met | Asp | Leu | Leu | Ala | Asp | Asn | Val | Ile |
| | | | 485 | | | | | 490 | | | | | | 495 | |
| Ala | Arg | Ala | Pro | Ala | Asp | Arg | Ser | Ala | Arg | Arg | Leu | Asp | Arg | Leu | Arg |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Met | Val | His | His | Met | Ser | Glu | Leu | Arg | Leu | Asn | Ala | Ala | Lys | Gly | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| His | Ser | Asp | Asn | Pro | Val | Ser | Gly | Ser | His | Asp | Met | Asn | Trp | Asp | Ala |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Thr | Leu | Tyr | Gly | Pro | Pro | Val | Ala | Asp | Asn | Trp | Arg | Leu | Phe | Ala | Gly |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Thr | Arg | Tyr | Ala | Gln | Gly | Asn | Phe | Asp | Glu | Gly | Lys | Gly | Ile | Ser | Arg |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| His | Leu | Leu | Gly | Gly | Val | Glu | Trp | Arg | Pro | Arg | Asp | Leu | Thr | Leu | Glu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Ala | Glu | Leu | Ser | Gly | Asn | Arg | Tyr | His | Gly | Lys | Asn | Arg | Pro | Gly | Ala |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Arg | Leu | Ser | Thr | Thr | Tyr | Ser | Leu | Ser | Asp | Asn | Trp | Gln | Val | Ser | Gly |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Asn | Leu | Glu | Arg | Leu | Ser | Arg | Ala | Thr | Pro | Leu | Arg | Ala | Leu | Arg | Asn |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Gly | Ile | Ser | Ala | Asn | Arg | Gly | Glu | Gly | Gly | Val | Arg | Trp | Tyr | Gln | Asn |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Glu | Arg | Arg | Glu | Tyr | Gln | Phe | Asn | Ala | Ala | Ile | Ser | Arg | Phe | Ser | Asp |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| His | Asn | Arg | Arg | Gln | Glu | Tyr | Thr | Leu | Ser | Gly | Lys | Glu | Arg | Leu | Trp |
| | | 675 | | | | | 680 | | | | | 685 | </ | | |

<210> 7865
 <211> 478
 <212> PRT
 <213> Enterobacter cloacae

<400> 7865

| | | | | | | | | | | | | | | | |
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| Thr | Ala | Ser | Lys | Ile | Thr | Val | Ile | Thr | Pro | Thr | Thr | Ser | Ser | Thr | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Leu | Ile | Phe | Arg | Val | Ser | Gly | Leu | Asn | Phe | Leu | Arg | Thr | Gly | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Met | Thr | Asp | Arg | Ile | Ile | Ala | Phe | Ser | Ile | Leu | Cys | Leu | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Gly | Leu | Pro | Leu | Gly | Val | Ala | Ala | Leu | Phe | Thr | Gly | Glu | Leu | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Asp | Phe | Val | Phe | Phe | Trp | Pro | Leu | Phe | Met | Ser | Val | Leu | Trp | Val |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Thr | Gly | Gly | Leu | Tyr | Phe | Trp | Phe | Gln | Leu | Glu | Arg | His | Trp | Ser | Trp |
| | | | | 85 | | | | 90 | | | | | 95 | | |
| Asp | Asn | Ala | Thr | Pro | Ala | Pro | Ala | Leu | Ala | Gly | Glu | Pro | Leu | Ile | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Leu | Ile | Pro | Cys | Phe | Asn | Glu | Arg | Asn | Ala | Arg | Glu | Thr | Ile | |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Ala | Ala | Leu | Asp | Gln | Arg | Tyr | Trp | Asn | Val | Glu | Val | Ile | Ala | Ile |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Asp | Gly | Ser | Ser | Asp | Asn | Thr | Ala | Glu | Val | Leu | Gln | Gln | Leu | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | |
| Arg | Glu | Gln | Pro | Arg | Leu | Arg | Val | Ile | Asn | Leu | Ala | Glu | Asn | Gln | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Lys | Ala | Val | Ala | Leu | Lys | Ala | Gly | Ala | Ala | Ala | Ala | Arg | Gly | Asp | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Val | Cys | Ile | Asp | Gly | Asp | Ala | Leu | Leu | Asp | Arg | Asp | Thr | Ala | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Leu | Val | Ala | Pro | Leu | Ile | Gln | Tyr | Pro | His | Val | Gly | Ala | Val | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Asn | Pro | Arg | Ile | Arg | Thr | Arg | Ser | Thr | Leu | Ile | Gly | Arg | Ile | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Val | Gly | Glu | Phe | Ser | Ser | Ile | Ile | Gly | Leu | Ile | Lys | Arg | Thr | Gln | Arg |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ile | Tyr | Gly | Arg | Val | Phe | Thr | Val | Ser | Gly | Val | Ile | Ala | Ala | Phe | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Gln | Ala | Leu | Ala | Asp | Val | Gly | Tyr | Trp | Ser | Pro | Asp | Met | Ile | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Glu | Asp | Ile | Asp | Ile | Ser | Trp | Lys | Leu | Gln | Leu | Arg | His | Trp | Asp | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Phe | Phe | Glu | Pro | Arg | Ala | Leu | Cys | Trp | Ile | Leu | Met | Pro | Glu | Thr | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Lys | Gly | Leu | Trp | Lys | Gln | Arg | Leu | Arg | Trp | Ala | Gln | Gly | Gly | Ala | Glu |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Val | Phe | Leu | Val | Asn | Leu | Arg | Lys | Met | Ala | Arg | Trp | Glu | His | His | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Trp | Pro | Leu | Phe | Leu | Glu | Tyr | Ala | Leu | Ser | Thr | Leu | Trp | Ala | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Tyr | Gly | Ala | Thr | Val | Val | Leu | Phe | Ile | Leu | Ser | His | Ile | Ile | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Pro | Ala | Asn | Leu | Ala | Val | Ala | Ser | Leu | Phe | Pro | Pro | Ala | Phe | Thr |
| 385 | | | | | 390 | | | | | 395 | | | | 400 | |
| Gly | Leu | Leu | Leu | Gly | Val | Met | Cys | Leu | Leu | Gln | Phe | Leu | Val | Ser | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Ile | Glu | Arg | Arg | Tyr | Glu | Arg | Lys | Val | Ala | Gly | Ser | Leu | Phe | Trp |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Val | Ile | Trp | Phe | Pro | Met | Val | Tyr | Trp | Met | Ile | Gly | Leu | Phe | Thr | Thr |

| | | |
|-------------------------|---------------------|---------------------|
| 435 | 440 | 445 |
| Leu Val Ala Phe Pro Lys | Val Met Leu Lys Arg | Lys Arg Ala Arg Ala |
| 450 | 455 | 460 |
| Arg Trp Ile Ser Pro Asp | Arg Gly Lys Gly Ser | Ile Gln |
| 465 | 470 | 475 |

<210> 7866

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 7866

| | | |
|---|---|-----------------------------|
| Ala Val Val Phe | Gln His Leu Val Gly | Gly Met Lys Val His Gln Val |
| 1 | 5 | 10 |
| Gln Phe Val Gly | Gly Phe Asp Gln Leu Leu Leu Gly | Ala Phe Gly Asn |
| 20 | 25 | 30 |
| Gly Glu Val Leu Ala Gly | Ile Val Val Asp Asn Val Ala Val Gly Ala | |
| 35 | 40 | 45 |
| Asn Val Arg Leu Leu Gln Gly | Val Val Phe Ile Glu Pro Phe Ser Val | |
| 50 | 55 | 60 |
| Glu Leu Ala Val Val Leu Gln Pro Arg | Ala Ala Asp Phe Gln Gln Phe | |
| 65 | 70 | 75 |
| Thr Val Asp Leu Arg Leu Arg Asn Thr | Val Phe Arg Leu Leu Arg Leu | |
| 85 | 90 | 95 |
| Asp His Pro Ala Glu Asp Leu Gly | Ile Val Glu Arg Val Met Lys Arg | |
| 100 | 105 | 110 |
| Ile Ala Thr Val Leu His Ala Gln Thr | Gln Leu Ala Arg Pro Leu Leu | |
| 115 | 120 | 125 |
| Pro His Arg Gln Arg Gly Val Asn Asn Val | Leu Leu Gly Asn Ala His | |
| 130 | 135 | 140 |
| Ser Val Ile Gln Gln Leu Gly Asn Asp Gly | Asp Val Ala Gly Leu Met | |
| 145 | 150 | 155 |
| Lys Leu Thr Ala Leu Leu Pro Asp Glu | Gln Arg Thr Gly Leu Arg Arg | |
| 165 | 170 | 175 |
| Ala Phe | | |

<210> 7867

<211> 327

<212> PRT

<213> Enterobacter cloacae

<400> 7867

| | |
|---|-----------------------------|
| Leu Thr Glu Val Ala Leu Ser Tyr Thr | Arg Pro Ala His Tyr Ala Arg |
| 1 | 5 |
| Ile Val Lys Arg Phe Leu His Leu Leu Leu | His Cys Leu Asn Thr Thr |
| 20 | 25 |
| Pro Lys Arg Gln Ala Asn Met Ser Asp | Asn Thr Tyr Gln Pro Pro Lys |
| 35 | 40 |
| Val Trp Glu Trp Lys Gln Asn Asn Gly Gly | Ala Phe Ala Asn Ile Asn |
| 50 | 55 |
| Arg Pro Val Ser Gly Ala Thr His Glu Lys Glu | Leu Pro Val Gly Ala |
| 65 | 70 |
| His Pro Leu Gln Leu Tyr Ser Leu Gly Thr | Pro Asn Gly Gln Lys Val |
| 85 | 90 |
| Thr Ile Met Leu Glu Glu Leu Leu Ala Leu Gly | Val Thr Gly Ala Glu |
| 100 | 105 |
| Tyr Asp Ala Trp Leu Ile Arg Ile Gly Glu Gly | Asp Gln Phe Ser Ser |
| 115 | 120 |
| Gly Phe Val Asp Val Asn Pro Asn Ser Lys Ile | Pro Ala Leu Arg Asp |
| 130 | 135 |
| | 140 |

His Ser Thr Thr Pro Pro Thr Arg Val Phe Glu Ser Gly Asn Ile Leu
 145 150 155 160
 Leu Tyr Leu Ala Glu Lys Phe Gly His Phe Leu Pro Lys Asp Pro Ala
 165 170 175
 Gly Arg Thr Glu Thr Leu Asn Trp Leu Phe Trp Leu Gln Gly Ala Ala
 180 185 190
 Pro Phe Leu Gly Gly Gly Phe Gly His Phe Tyr Asn Tyr Ala Pro Val
 195 200 205
 Lys Ile Glu Tyr Ala Ile Asp Arg Phe Thr Met Glu Ala Lys Arg Leu
 210 215 220
 Phe Asp Val Leu Asp Lys Gln Leu Ala Arg Gly Arg Tyr Val Ala Gly
 225 230 235 240
 Glu Glu Tyr Thr Ile Ala Asp Met Ala Val Trp Pro Trp Phe Gly Cys
 245 250 255
 Val Ala Leu Gly Ser Val Tyr Asn Ala Ala Glu Phe Leu Asp Ala Gly
 260 265 270
 Lys Tyr Thr Asn Val Gln Arg Trp Ala Lys Asp Val Ala Asn Arg Pro
 275 280 285
 Ala Val Lys Arg Gly Arg Ile Val Asn Arg Thr Asn Gly Glu Leu Asn
 290 295 300
 Glu Gln Leu His Glu Arg His Ser Ala Ser Asp Phe Asp Thr Gln Thr
 305 310 315 320
 Glu Asp Lys Arg Gln Gly
 325

<210> 7868

<211> 93

<212> PRT

<213> Enterobacter cloacae

<400> 7868

Thr Leu Asp Asp Phe Leu Gly Phe Leu Ala Pro Arg Asp Glu Glu Val
 1 5 10 15
 Lys Gly His Lys Ser Met Phe Leu Gly Asn Asp Pro Val Thr Asp Ala
 20 25 30
 Ser Val Ile Pro Ala Leu Asp Gln Leu Thr Gly Gly Lys Lys Asp Thr
 35 40 45
 Thr Val Phe Phe Arg Ala Asp Lys Thr Val Asp Tyr Arg Lys Thr Gln
 50 55 60
 Leu Gly Glu Met Lys Val Met Asp Thr Leu His Gln Ala Gly Tyr Leu
 65 70 75 80
 Lys Ile Gly Leu Val Gly Glu Glu Lys Ala Ala Ala Lys
 85 90

<210> 7869

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 7869

Gln Lys Gln Arg Val Ile Gln Arg Gln Arg Leu Ala Ala Leu Arg Gln
 1 5 10 15
 Arg Gly Glu Arg Ala Ser Gly Ile Pro Leu Val Ala Ala Leu Gly His
 20 25 30
 Gly Leu Glu Asn Ala Arg Leu Ala Ala Arg Val Phe Thr Ser Gly
 35 40 45
 Val Phe Thr Thr Arg Ile Leu Thr Ala Arg Ile Phe Thr Ser Gly Val
 50 55 60
 Phe Thr Ala Arg Ile Leu Thr Ala Arg Val Phe Ala Ser Gly Val Phe
 65 70 75 80
 Thr Thr Arg Ile Leu Thr Ala Arg Val Phe Ala Ser Gly Ile Phe Ser

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Ser | Arg | Ile | Leu | Ala | Thr | Gly | Leu | Phe | Leu | Arg | Asp | Gly | Gln | Ile | Asp | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Gly | Ile | Gly | Ala | Leu | Leu | Lys | Arg | His | Val | Glu | Glu | Gly | Gly | Phe | Gly | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Asp | Arg | Ala | Gly | Glu | Leu | Thr | Val | Asn | Ser | Pro | Val | Gly | Gly | Gln | Asn | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Ala | Val | Ala | Leu | Ala | Arg | Phe | Ile | Ala | Gly | Leu | Arg | Ile | Gln | Arg | Gly | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Asp | Leu | Tyr | Leu | Ser | Leu | Ile | Ala | Asp | Gly | Gly | Phe | Ala | Arg | Tyr | Gln | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |

<210> 7870

<211> 215

<212> PRT

<213> Enterobacter cloacae

<400> 7870

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Lys | Glu | Ala | Pro | Leu | Gly | Gln | Asn | Tyr | Ala | Leu | Val | Val | Asp | Asp | His | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Pro | Leu | Val | Ala | Ser | Gly | Ile | Ala | Asn | Phe | Leu | Ile | Thr | His | Cys | Gln | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Phe | Lys | Gln | Ala | Cys | Val | Val | Thr | Asn | Glu | Asp | Asp | Cys | Tyr | Arg | Gln | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Ile | Arg | Asp | His | Gly | Pro | Pro | Arg | Leu | Leu | Val | Ile | Asp | Phe | Trp | Leu | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Ser | Ser | Gly | Thr | Ala | Leu | Lys | Leu | Leu | Lys | Glu | Val | Lys | Gln | Leu | Tyr | | |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 | | |
| Pro | Gln | Val | Arg | Leu | Leu | Val | Val | Ser | Gly | Asp | Asp | Asn | Asn | Asp | Ile | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Trp | Arg | Lys | Val | Asn | Ala | Ala | Gly | Gly | His | Gly | Phe | Val | Leu | Lys | Ser | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Glu | Pro | Pro | Glu | Met | Phe | Ser | Arg | Ala | Val | Phe | Ala | Leu | Thr | Asp | Asn | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Gln | Thr | Trp | Phe | Pro | Glu | Gly | Asn | Glu | Ile | Ser | Val | Lys | Ala | Asn | Asn | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Glu | Lys | Leu | Ser | Lys | Phe | Asn | Leu | Thr | Pro | Arg | Gln | Ile | Asp | Val | Leu | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Asn | Met | Ile | Arg | Arg | Gly | Leu | Pro | Asn | Lys | Arg | Ile | Ala | Ala | Gln | Leu | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Ser | Ile | Ser | Glu | Pro | Thr | Val | Lys | Glu | His | Ile | Ser | Asn | Ile | Leu | Lys | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Lys | Ile | Gly | Val | Asn | Ser | Arg | Val | Glu | Ala | Ile | Thr | Leu | Leu | His | Gly | | |
| | 195 | | | | | 200 | | | | | | 205 | | | | | |
| Lys | Gln | Glu | Pro | Ser | Glu | | | | | | | | | | | | |
| | 210 | | | | | 215 | | | | | | | | | | | |

<210> 7871

<211> 176

<212> PRT

<213> Enterobacter cloacae

<400> 7871

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Asp | Ile | Leu | Ser | Ala | Gly | Phe | Val | Cys | Arg | Gln | Asp | Phe | Met | Glu | Arg | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | |
| Phe | Phe | Glu | Asn | Ala | Met | Tyr | Ala | Ser | Arg | Trp | Leu | Leu | Ala | Pro | Val | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Tyr | Phe | Gly | Leu | Ser | Leu | Ala | Leu | Val | Ala | Leu | Thr | Ile | Lys | Phe | Phe | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Ile | Phe | His | Val | Leu | Pro | Asn | Ile | Phe | Ser | Val | Ala | Glu | Ala |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Asp | Leu | Ile | Leu | Val | Leu | Ser | Leu | Val | Asp | Met | Thr | Leu | Val | Gly | |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Leu | Leu | Val | Met | Val | Met | Phe | Ser | Gly | Tyr | Glu | Asn | Phe | Val | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Leu | Asp | Ile | Ala | Glu | His | Lys | Glu | Lys | Leu | Ser | Trp | Leu | Gly | Lys |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Asp | Ala | Ser | Ser | Leu | Lys | Asn | Lys | Val | Ala | Ala | Ser | Ile | Val | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Ser | Ser | Ile | His | Leu | Leu | Arg | Val | Phe | Met | Asp | Ala | Lys | Asn | Val |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Pro | Asp | Asn | Lys | Leu | Met | Trp | Tyr | Val | Ile | Ile | His | Leu | Thr | Phe | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Ser | Ala | Phe | Val | Met | Gly | Tyr | Leu | Asp | Lys | Ile | Ser | Lys | Lys | |
| | | | | 165 | | | | | 170 | | | | | 175 | |

<210> 7872

<211> 559

<212> PRT

<213> Enterobacter cloacae

<400> 7872

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Glu | Thr | Thr | Phe | Ser | Phe | Tyr | Ala | Asp | Ser | Ile | Thr | Lys | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Tyr | Phe | Leu | Gln | Tyr | Leu | Pro | Ile | Thr | Arg | Gly | Val | Leu | Ala | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Arg | Ile | His | Pro | His | Gly | Lys | Glu | Tyr | Ser | Met | Lys | Met | Leu | Arg |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Asn | Phe | Thr | Ile | Arg | Phe | Val | Met | Leu | Thr | Ile | Leu | Gly | Ile | Phe | Cys |
| | 50 | | | | 55 | | | | | | 60 | | | | |
| Val | Met | Trp | Ala | Gly | Val | Gly | Leu | Tyr | Ser | Thr | Trp | Ser | Leu | Ser | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Val | Ser | Asp | Gly | Asn | Asp | Val | Asp | Arg | Leu | Leu | Val | Arg | Gln | Met | Thr |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Val | Leu | Ser | Gln | Gly | Asn | Asp | Gln | Tyr | Phe | Arg | Phe | Val | Thr | Arg | Leu |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Ser | Arg | Ala | Met | Glu | Val | Lys | Ala | Ala | Gly | Gly | Thr | Pro | Asp | Leu | Ala |
| | | 115 | | | | 120 | | | | | 125 | | | | |
| Pro | Ala | Gln | Gln | Ala | Leu | Asp | Asn | Met | Ser | Lys | Lys | Leu | Ala | Glu | Met |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Lys | Ala | Ile | Ser | Pro | Gly | Pro | Met | Asp | Glu | Lys | Val | Ser | Ala | Gln | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ile | Ser | Thr | Trp | Gln | Ala | Leu | Leu | Asp | Gln | Gly | Val | Thr | Pro | Gln | Met |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ala | Gln | Ala | Lys | Gln | Ala | Thr | Leu | Glu | Gly | Tyr | Arg | Gln | His | Ala | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Val | Thr | Pro | Pro | Leu | Ser | Arg | Ala | Phe | Gly | Ser | Ala | Ala | Glu | Asn |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Phe | Asn | Asn | Thr | Ala | Ala | Lys | Ala | Leu | Asp | Ser | Thr | Arg | Val | Val | Val |
| | 210 | | | | 215 | | | | | 220 | | | | | |
| Asp | Gly | Leu | Thr | Ser | Met | Thr | Arg | Thr | Val | Ile | Ile | Thr | Ala | Thr | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Gly | Leu | Leu | Ile | Leu | Leu | Phe | Thr | Asp | Arg | Tyr | Leu | Val | Ala | Ile |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Leu | Val | Lys | Pro | Leu | Asp | Arg | Ile | Arg | Gln | Gln | Phe | Arg | Gln | Ile | Ala |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Gln | Gly | Asp | Leu | Ser | Gln | Pro | Ile | Glu | Ser | Leu | Gly | Arg | Asn | Cys | Val |
| | | 275 | | | | 280 | | | | | 285 | | | | |
| Gly | Gln | Leu | Val | Pro | Leu | Leu | Ser | Ala | Met | Gln | Asp | Ser | Leu | Arg | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |

Ala Val Ser Thr Ile Arg Ser Gly Ser Glu Asn Ile Trp Arg Gly Ala
 305 310 315 320
 Thr Glu Ile Ser Ser Gly Asn Asn Asp Leu Ser Ser Arg Thr Glu Glu
 325 330 335
 Gln Ala Ala Ala Leu Glu Glu Thr Ala Ala Ser Met Glu Gln Leu Thr
 340 345 350
 Ala Thr Val Lys Leu Asn Ala Glu Ser Ala Arg Gln Ala Ser Gln Leu
 355 360 365
 Ala Asp Val Ala Ser Ser Thr Ala Ser Arg Gly Gly Ser Leu Val Glu
 370 375 380
 Asp Val Val Thr Thr Met Ser Gly Ile Ser Asp Ser Ser Lys Lys Ile
 385 390 395 400
 Ala Glu Ile Thr Thr Val Ile Asn Ser Ile Ala Phe Gln Thr Asn Ile
 405 410 415
 Leu Ala Leu Asn Ala Ala Val Glu Ala Ala Arg Ala Gly Glu Gln Gly
 420 425 430
 Arg Gly Phe Ala Val Val Ala Gly Glu Val Arg Asn Leu Ala Ser Arg
 435 440 445
 Ser Ala Asn Ala Ala Lys Glu Ile Glu Gly Leu Ile Ala Asp Ser Val
 450 455 460
 Ala Arg Val Glu Gln Gly Ala Gln Leu Val Asn Asp Thr Gly Thr Thr
 465 470 475 480
 Met Glu Ala Ile Leu Arg Asp Val Thr Glu Val Thr Val Ile Met Lys
 485 490 495
 Gln Ile Ala Thr Ala Ser Glu Glu Gln Ser Lys Gly Ile Ser Gln Val
 500 505 510
 Gly Val Ala Ile Thr Gln Met Asp Gly Val Thr Gln Gln Asn Ala Ser
 515 520 525
 Leu Val Glu Gln Val Ser Ala Ala Ala Ala Leu Glu Arg Gln Thr
 530 535 540
 Glu Glu Leu Gln Arg Ser Val Gln Lys Phe Arg Leu Thr Ala
 545 550 555

<210> 7873

<211> 624

<212> PRT

<213> Enterobacter cloacae

<400> 7873

Val Gly His Met Arg Lys Gly Thr Leu Ser Ser Asp Ala Pro Phe Gly
 1 5 10 15
 Thr Leu Leu Gly Tyr Ala Pro Gly Gly Val Ala Ile Tyr Ser Ser Asn
 20 25 30
 Tyr Gly Ser Leu Asp Pro Arg Arg Tyr Pro Glu Asp Ala Glu Phe Arg
 35 40 45
 Ser Tyr Ile Gly Asn Glu Tyr Met Gly His Lys Trp Gln Cys Val Glu
 50 55 60
 Phe Ala Arg Arg Phe Leu Phe Leu Asn His Gly Phe Val Phe Thr Asp
 65 70 75 80
 Val Gly Met Ala Trp Glu Ile Phe Ser Leu Arg Phe Leu Arg Gln Val
 85 90 95
 Val Asn Asp Asn Ile Leu Pro Leu Gln Ala Phe Ala Asn Gly Ser Lys
 100 105 110
 Arg Ala Pro Gln Ala Gly Ala Leu Leu Ile Trp Gln Lys Gly Gly Glu
 115 120 125
 Phe His Glu Thr Gly His Val Ala Val Ile Thr Gln Leu Leu Asp Asp
 130 135 140
 Arg Val Arg Ile Ala Glu Gln Asn Val Ile His Ser Pro Leu Pro Met
 145 150 155 160
 Gly Gln Gln Trp Thr Arg Glu Leu Arg Leu Ser Val Glu Asp Gly Cys
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Thr | Leu | His | Asp | Thr | Phe | Asn | Asp | Thr | Glu | Ile | Leu | Gly | Trp | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Gln | Thr | Glu | Glu | Thr | Glu | His | Ser | Ile | Pro | Gln | Pro | Glu | Ile | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Glu | Leu | Leu | Lys | Ile | Ser | Gly | Ala | Arg | Leu | Lys | Asn | Asn | Arg | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Phe | Asp | Gly | Lys | Trp | Leu | Asn | Glu | Asn | Asp | Ala | Leu | Gln | Gln | Ala | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Arg | Ala | Asn | Gly | His | Val | Ile | Asn | Asn | Asp | Pro | Cys | Gln | Tyr | Phe |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Thr | Ile | Thr | Glu | Ser | Ala | Glu | Gln | Glu | Leu | Ile | Lys | Ala | Thr | Asn | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | His | Leu | Met | Tyr | Leu | His | Ala | Thr | Asp | Lys | Val | Leu | Lys | Asp | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Leu | Leu | Ala | Leu | Phe | Asp | Ile | Pro | Lys | Ile | Leu | Trp | Pro | Arg | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Arg | Leu | Ser | Trp | Gln | Trp | Arg | Arg | His | His | Met | Ile | Thr | Gly | Arg | Met |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Phe | Cys | Met | Asp | Glu | Arg | Gly | Ile | Lys | Val | Tyr | Glu | Tyr | Asn | Ala |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asp | Ser | Ala | Ser | Cys | His | Thr | Glu | Gly | Gly | Leu | Ile | Leu | Glu | Glu | Trp |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Val | Lys | Asn | Gly | Tyr | Arg | Gly | Thr | Gly | His | Asn | Pro | Ala | Glu | Gly | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Glu | Glu | Leu | Thr | Gly | Ala | Trp | Lys | His | Ser | His | Ala | Arg | Pro | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Val | His | Ile | Met | Gln | Asp | Asn | Asp | Ile | Glu | Glu | Asp | Tyr | His | Val | Leu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Phe | Ile | Gln | Arg | Ser | Leu | Ile | Gln | Ala | Gly | Phe | Glu | Thr | Lys | Ile | Leu |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| His | Gly | Leu | Gly | Ala | Leu | Ser | Trp | Asp | Ala | Ala | Gly | Gln | Leu | Ile | Asp |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Glu | Gly | Arg | His | Val | Asn | Cys | Val | Trp | Lys | Thr | Trp | Ala | Trp | Glu |
| | | 435 | | | | 440 | | | | | | 445 | | | |
| Thr | Ala | Ile | Glu | Gln | Ile | Arg | Glu | Val | Ser | Glu | Thr | Glu | Tyr | Ala | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Val | Pro | Ile | Arg | Thr | Gly | His | Pro | Gln | Gly | Glu | Val | Arg | Leu | Ile | Asp |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Val | Leu | Leu | Arg | Pro | Glu | Val | Leu | Val | Phe | Glu | Pro | Leu | Trp | Thr | Val |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Ile | Pro | Gly | Asn | Lys | Ala | Ile | Leu | Pro | Val | Leu | Trp | Gln | Leu | Phe | Pro |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Asn | His | Arg | Tyr | Leu | Leu | Asp | Thr | Asp | Phe | Glu | Val | Asn | Asp | Leu | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Lys | Arg | Thr | Gly | Tyr | Ala | Val | Lys | Pro | Ile | Ala | Gly | Arg | Cys | Gly | Ser |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Asn | Ile | Asp | Leu | Ile | Gly | Ala | Gln | Asp | Glu | Leu | Leu | Asp | Gln | Ser | Ser |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Gly | Lys | Phe | Val | Asp | Arg | Lys | Asn | Ile | Tyr | Gln | Gln | Leu | Trp | Cys | Leu |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Pro | Lys | Val | Asp | Gly | Arg | Tyr | Ile | Gln | Val | Cys | Thr | Phe | Thr | Val | Gly |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Gly | Asn | Tyr | Gly | Gly | Thr | Cys | Leu | Arg | Gly | Asp | Asn | Ser | Leu | Val | Val |
| | 595 | | | | | 600 | | | | | | 605 | | | |
| Lys | Lys | Glu | Ser | Asp | Ile | Glu | Pro | Leu | Ile | Val | Val | Lys | Asp | Asn | |
| | 610 | | | | | 615 | | | | | 620 | | | | |

<210> 7874

<211> 130

<212> PRT

<213> Enterobacter cloacae

<400> 7874

Thr Val Arg Asn Ala Val Gln Val Phe Ser Gly Glu Gln Ala Leu Cys
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 Gln Arg Gly Lys Gly Asp Thr Ala Arg Ser Val Phe Leu Gln Arg Val
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 Gln Gln Ala Gly Leu Val Asp Pro Ala Val Lys Gln Val Val Arg Arg
 35 40 45
 Leu Val Asp Gln Lys Arg Asp Leu Pro Leu Ala Gln Gln Phe Gly His
 50 55 60
 Arg Arg Arg Ala Phe Arg Gly Val Arg Arg Asn Ala Asp Ile Gln Arg
 65 70 75 80
 Phe Ser Ala Leu His Arg Val Cys Gln Arg Ser Gly Gly Leu Phe His
 85 90 95
 Arg Arg Val Phe Val Tyr Ala Val Arg Ile Glu Asn Ile His Ile Leu
 100 105 110
 His Thr His Ala Val Gln Ala Leu Val Glu Ala Gly Glu Gln Val Leu
 115 120 125
 Thr
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<210> 7875

<211> 354

<212> PRT

<213> Enterobacter cloacae

<400> 7875

Met Leu Tyr Thr His Ser Ser His Gln Asn Arg Gly Asn Ala Met Ser
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 Lys Ile Lys Ser Tyr Ala Ala Pro Gln Ala Gly Ala Glu Leu Glu Leu
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 Tyr Glu Tyr Asp Ala Gly Glu Leu Lys Ala Glu Asp Val Glu Val Gln
 35 40 45
 Val Asp Tyr Cys Gly Ile Cys His Ser Asp Leu Ser Met Ile Asp Asn
 50 55 60
 Glu Trp Gly Phe Ser Ser Tyr Pro Leu Val Ala Gly His Glu Val Ile
 65 70 75 80
 Gly Arg Val Val Ala Leu Gly Ser Ala Ala Gln Asp Lys Gly Leu Lys
 85 90 95
 Val Gly Gln Arg Val Gly Ile Gly Trp Thr Ala Arg Ser Cys Gly His
 100 105 110
 Cys Asp Ala Cys Ile Ser Gly Asn Gln Ile Asn Cys Leu Glu Gly Ala
 115 120 125
 Thr Pro Thr Ile Leu Asn Lys Gly Gly Phe Ala Asp Lys Leu Arg Ala
 130 135 140
 Asp Trp Gln Trp Val Ile Pro Leu Pro Asp Ser Ile Asp Ile Glu Ser
 145 150 155 160
 Ala Gly Pro Leu Leu Cys Gly Gly Ile Thr Val Phe Lys Pro Leu Leu
 165 170 175
 Met His His Ile Thr Ala Thr Ser Arg Val Gly Val Ile Gly Ile Gly
 180 185 190
 Gly Leu Gly His Ile Ala Ile Lys Leu Leu His Ala Met Gly Cys Glu
 195 200 205
 Val Thr Ala Phe Ser Ser Asn Pro Ala Lys Glu Gln Glu Val Leu Ala
 210 215 220
 Met Gly Ala Asp Lys Val Val Asn Ser Arg Asp Pro Gln Ala Leu Thr
 225 230 235 240
 Ala Leu Ala Gly Gln Phe Asp Leu Ile Ile Asn Thr Val Asn Val Asp
 245 250 255
 Leu Asp Trp Gln Pro Tyr Phe Glu Ala Leu Ala Tyr Gly Gly Asn Phe
 260 265 270

His Thr Val Gly Ala Val Met Lys Pro Leu Pro Val Pro Ala Phe Thr
 275 280 285
 Leu Ile Gly Gly Asp Arg Ser Val Ser Gly Ser Ala Thr Gly Thr Pro
 290 295 300
 Tyr Glu Leu Arg Lys Leu Met Lys Phe Ala Gly Arg Thr Lys Val Ala
 305 310 315 320
 Pro Thr Thr Glu Leu Tyr Pro Met Ser Lys Ile Asn Glu Ala Ile Gln
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 Phe

<210> 7876

<211> 960

<212> PRT

<213> Enterobacter cloacae

<400> 7876

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 Lys Pro Asn Gly Asp Glu Ser Lys Glu Ser Phe Cys Ile Met Ile Pro
 35 40 45
 Pro Pro Asn Val Thr Gly Ser Leu His Met Gly His Ala Phe Gln Gln
 50 55 60
 Thr Ile Met Asp Thr Met Ile Arg Tyr Gln Arg Met Gln Gly Lys Asn
 65 70 75 80
 Thr Leu Trp Gln Ala Gly Thr Asp His Ala Gly Ile Ala Thr Gln Met
 85 90 95
 Val Val Glu Arg Lys Ile Ala Ala Glu Glu Gly Lys Thr Arg His Asp
 100 105 110
 Tyr Gly Arg Asp Ala Phe Ile Asp Lys Ile Trp Gln Trp Lys Ala Glu
 115 120 125
 Ser Gly Gly Thr Ile Thr Arg Gln Met Arg Arg Leu Gly Asn Ser Val
 130 135 140
 Asp Trp Glu Arg Glu Arg Phe Thr Met Asp Glu Gly Leu Ser Asn Ala
 145 150 155 160
 Val Lys Glu Val Phe Val Arg Leu Tyr Lys Glu Asp Leu Ile Tyr Arg
 165 170 175
 Gly Lys Arg Leu Val Asn Trp Asp Pro Lys Leu Arg Thr Ala Ile Ser
 180 185 190
 Asp Leu Glu Val Glu Asn Arg Glu Ser Lys Gly Ser Met Trp His Ile
 195 200 205
 Arg Tyr Pro Leu Ala Asp Gly Ala Lys Thr Ala Asp Gly Lys Asp Tyr
 210 215 220
 Leu Val Val Ala Thr Thr Arg Pro Glu Thr Leu Leu Gly Asp Thr Gly
 225 230 235 240
 Val Ala Val Asn Pro Glu Asp Pro Arg Tyr Lys Asp Leu Ile Gly Lys
 245 250 255
 Phe Val Val Leu Pro Leu Val Asn Arg Arg Ile Pro Ile Val Gly Asp
 260 265 270
 Glu His Ala Asp Met Glu Lys Gly Thr Gly Cys Val Lys Ile Thr Pro
 275 280 285
 Ala His Asp Phe Asn Asp Tyr Glu Val Gly Arg Arg His Gln Leu Pro
 290 295 300
 Met Ile Asn Ile Leu Thr Phe Asp Gly Asp Ile Arg Glu Ser Ala Glu
 305 310 315 320
 Val Tyr Asp Thr Lys Gly Asn Glu Ser Asp Val Tyr Ser Ser Asp Ile
 325 330 335

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Glu | Phe | Gln | Lys | Leu | Glu | Arg | Phe | Ala | Ala | Arg | Lys | Ala | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Val | Ala | Ala | Val | Asp | Ala | Leu | Gly | Leu | Leu | Glu | Glu | Ile | Lys | Pro | His |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asp | Leu | Thr | Val | Pro | Tyr | Gly | Asp | Arg | Gly | Gly | Val | Val | Ile | Glu | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Met | Leu | Thr | Asp | Gln | Trp | Tyr | Val | Arg | Ala | Asp | Val | Leu | Ala | Lys | Pro |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Val | Glu | Ala | Val | Glu | Asn | Gly | Ser | Ile | Gln | Phe | Val | Pro | Lys | Gln |
| | | | | 405 | | | | | 410 | | | | | | 415 |
| Tyr | Glu | Asn | Met | Tyr | Phe | Ser | Trp | Met | Arg | Asp | Ile | Gln | Asp | Trp | Cys |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Ile | Ser | Arg | Gln | Leu | Trp | Trp | Gly | His | Arg | Ile | Pro | Ala | Trp | Tyr | Asp |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asn | Glu | Gly | Asn | Val | Tyr | Val | Gly | Arg | Thr | Glu | Glu | Glu | Val | Arg | Gln |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Glu | Asn | Asn | Leu | Gly | Ala | Asp | Val | Ala | Leu | Arg | Gln | Asp | Glu | Asp | Val |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Leu | Asp | Thr | Trp | Phe | Ser | Ser | Ala | Leu | Trp | Thr | Phe | Ser | Thr | Leu | Gly |
| | | | | 485 | | | | | 490 | | | | | | 495 |
| Trp | Pro | Glu | Asn | Thr | Asp | Ala | Leu | Arg | Gln | Phe | His | Pro | Thr | Ser | Val |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Met | Val | Ser | Gly | Phe | Asp | Ile | Ile | Phe | Phe | Trp | Ile | Ala | Arg | Met | Ile |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Met | Met | Thr | Met | His | Phe | Ile | Lys | Asp | Glu | Asp | Gly | Lys | Pro | Gln | Val |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Pro | Phe | His | Thr | Val | Tyr | Met | Thr | Gly | Leu | Ile | Arg | Asp | Asp | Glu | Gly |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Gln | Lys | Met | Ser | Lys | Ser | Lys | Gly | Asn | Val | Ile | Asp | Pro | Leu | Asp | Met |
| | | | | 565 | | | | | 570 | | | | | | 575 |
| Val | Asp | Gly | Ile | Ser | Leu | Glu | Glu | Leu | Leu | Glu | Lys | Arg | Thr | Gly | Asn |
| | | | 580 | | | | | 585 | | | | | | 590 | |
| Met | Met | Gln | Pro | Gln | Leu | Ala | Glu | Lys | Ile | Arg | Lys | Arg | Thr | Glu | Lys |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Gln | Phe | Pro | Asn | Gly | Ile | Glu | Ser | His | Gly | Thr | Asp | Ala | Leu | Arg | Phe |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Thr | Leu | Ala | Ala | Leu | Ala | Ser | Thr | Gly | Arg | Asp | Ile | Asn | Trp | Asp | Met |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Lys | Arg | Leu | Glu | Gly | Tyr | Arg | Asn | Phe | Cys | Asn | Lys | Leu | Trp | Asn | Ala |
| | | | | 645 | | | | | 650 | | | | | | 655 |
| Ser | Arg | Phe | Val | Leu | Met | Asn | Thr | Glu | Asp | Gln | Asp | Cys | Gly | Phe | Asn |
| | | 660 | | | | | | 665 | | | | | 670 | | |
| Gly | Gly | Glu | Met | Thr | Leu | Ser | Leu | Ala | Asp | Arg | Trp | Ile | Leu | Ala | Glu |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Phe | Asn | Gln | Thr | Val | Lys | Ala | Phe | Arg | Asp | Ala | Leu | Asp | Ser | Tyr | Arg |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Phe | Asp | Ile | Ala | Ala | Gly | Ile | Leu | Tyr | Glu | Phe | Thr | Trp | Asn | Gln | Phe |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Cys | Asp | Trp | Tyr | Leu | Glu | Leu | Ala | Lys | Pro | Val | Met | Asn | Gly | Gly | Ser |
| | | | | 725 | | | | | 730 | | | | | | 735 |
| Glu | Ala | Glu | Leu | Arg | Gly | Thr | Arg | Asn | Thr | Leu | Ile | Thr | Val | Leu | Glu |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Gly | Leu | Leu | Arg | Leu | Ala | His | Pro | Ile | Ile | Pro | Phe | Ile | Thr | Glu | Thr |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Ile | Trp | Gln | Arg | Val | Lys | Val | Ile | Ala | Gly | Ile | Asn | Pro | Asp | Thr | Ile |
| | 770 | | | | | 775 | | | | | | 780 | | | |
| Met | Leu | Gln | Pro | Phe | Pro | Ala | Phe | Asp | Ala | Ala | Lys | Val | Asp | Glu | Ala |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Ala | Ser | Ala | Asp | Thr | Glu | Trp | Leu | Lys | Gln | Ala | Ile | Val | Ala | Ile | Arg |
| | | | | 805 | | | | | 810 | | | | | 815 | |
| Asn | Ile | Arg | Ala | Glu | Met | Asn | Ile | Ala | Pro | Gly | Lys | Pro | Leu | Glu | Leu |


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<211> 199
<212> PRT
<213> Enterobacter cloacae
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<210> 7878
<211> 201
<212> PRT
<213> Enterobacter cloacae
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Ser Ser Cys Ser Ile Gly Arg Val Leu Pro Gly Arg Ser Asn Asp Lys
20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Arg | Gly | Gly | Val | Pro | Leu | Thr | Arg | Ala | Leu | His | Leu | Asn | Pro | Arg |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Gln | Glu | Thr | Pro | Tyr | Met | Lys | Asn | Ala | Thr | Phe | Tyr | Leu | Leu | Asp | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Thr | His | Gln | Asp | Gly | Leu | Ser | Ala | Val | Glu | Gln | Leu | Val | Cys | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ile | Ala | Ala | Glu | Arg | Trp | Arg | Ala | Gly | Lys | Arg | Val | Leu | Ile | Ala | Cys |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Glu | Asp | Glu | Gln | Gln | Ala | Ile | Arg | Leu | Asp | Glu | Ala | Leu | Trp | Ala | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Pro | Glu | Ser | Phe | Val | Pro | His | Asn | Leu | Ser | Gly | Glu | Gly | Pro | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Gly | Ala | Pro | Val | Glu | Ile | Ala | Trp | Pro | Gln | Lys | Arg | Asn | Ser | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Arg | Asp | Ile | Leu | Ile | Ser | Leu | Arg | Thr | Asp | Phe | Ala | Asp | Phe | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Thr | Ala | Phe | Thr | Glu | Val | Val | Asp | Phe | Val | Pro | Tyr | Glu | Glu | Ser | Leu |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Lys | Gln | Leu | Ala | Arg | Glu | Arg | Tyr | Lys | Ala | Tyr | Arg | Leu | Ala | Gly | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Leu | Asn | Thr | Ala | Thr | Trp | Lys | | | | | | | | |
| | | 195 | | | | | 200 | | | | | | | | |

<210> 7879

<211> 524

<212> PRT

<213> Enterobacter cloacae

<400> 7879

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| Gly | Ile | Tyr | Ala | Asp | Ile | Leu | Pro | Ser | Gly | Cys | Leu | Tyr | Ser | Thr | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Tyr | Glu | Arg | Thr | Cys | Ile | Met | Ser | Thr | Pro | Leu | Leu | Ile | Ala | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Leu | Glu | Lys | Glu | Leu | Phe | Leu | Leu | Pro | Ala | Met | Ala | Asn | Arg | His |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Leu | Ile | Thr | Gly | Ala | Thr | Gly | Thr | Gly | Lys | Thr | Val | Thr | Leu | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Lys | Leu | Ala | Glu | Ser | Leu | Ser | Glu | Thr | Gly | Val | Pro | Val | Phe | Met | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Val | Lys | Gly | Asp | Leu | Thr | Gly | Val | Ala | Gln | Glu | Gly | Ala | Ala | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Lys | Leu | Leu | Glu | Arg | Leu | Lys | Asn | Ile | Gly | Ile | Thr | Asp | Trp | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | His | Gly | Asn | Pro | Val | Val | Val | Trp | Asp | Ile | Phe | Gly | Glu | Lys | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Pro | Val | Arg | Ala | Thr | Val | Ser | Asp | Leu | Gly | Pro | Leu | Leu | Leu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Leu | Leu | Asn | Leu | Asn | Asp | Val | Gln | Ser | Gly | Val | Leu | Asn | Ile | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Arg | Ile | Ala | Asp | Asp | Gln | Gly | Leu | Leu | Leu | Leu | Asp | Phe | Lys | Asp |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Leu | Arg | Ala | Ile | Thr | Gln | Tyr | Ile | Gly | Asp | Asn | Ala | Lys | Ser | Phe | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Gln | Tyr | Gly | Asn | Ile | Ser | Ser | Ala | Ser | Val | Gly | Ala | Ile | Gln | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Leu | Leu | Thr | Leu | Glu | Gln | Gly | Ala | Glu | His | Phe | Phe | Gly | Glu | |
| | 210 | | | | | 215 | | | | 220 | | | | | |
| Pro | Met | Leu | Asp | Ile | Lys | Asp | Trp | Met | Arg | Thr | Asp | Ser | Ser | Gly | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ile | Ile | Asn | Ile | Leu | Ser | Ala | Glu | Lys | Leu | Tyr | Gln | Met | Pro | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |

Leu Tyr Ala Ala Ser Leu Leu Trp Met Leu Ser Glu Leu Tyr Glu Gln
 260 265 270
 Leu Pro Glu Ala Gly Asp Leu Glu Lys Pro Lys Leu Val Phe Phe Phe
 275 280 285
 Asp Glu Ala His Leu Leu Phe Asn Asp Ala Pro Gln Val Leu Leu Asp
 290 295 300
 Lys Ile Glu Gln Val Ile Arg Leu Ile Arg Ser Lys Gly Val Gly Val
 305 310 315 320
 Trp Phe Val Ser Gln Asn Pro Ser Asp Ile Pro Asp Asn Val Leu Gly
 325 330 335
 Gln Leu Gly Asn Arg Val Gln His Ala Leu Arg Ala Phe Thr Pro Lys
 340 345 350
 Asp Gln Lys Ala Val Lys Ala Ala Gln Thr Met Arg Val Asn Pro
 355 360 365
 Ala Phe Asp Thr Glu Thr Ala Ile Gln Ala Leu Gly Thr Gly Glu Ala
 370 375 380
 Leu Ile Ser Phe Leu Asp Ala Lys Gly Ser Pro Thr Val Val Glu Arg
 385 390 395 400
 Ala Met Val Ile Ala Pro Cys Ser Arg Met Gly Pro Val Thr Asp Asp
 405 410 415
 Glu Arg Asn Gly Leu Ile Asn His Ser Pro Val Tyr Gly Lys Tyr Glu
 420 425 430
 Asp Glu Val Asp Arg Glu Ser Ala Phe Glu Met Leu Gln Lys Gly Val
 435 440 445
 Gln Ala Thr Ala Glu Ser Gln Asp Ala Pro Ala Ala Lys Gly Gln Ser
 450 455 460
 Val Ala Val Asp Asp Gly Ile Leu Gly Gly Leu Lys Asp Ile Leu Phe
 465 470 475 480
 Gly Ser Thr Gly Pro Arg Gly Gly Lys Arg Asp Gly Val Val Gln Thr
 485 490 495
 Met Ala Lys Ser Ala Thr Arg Gln Ile Thr Asn Gln Ile Val Arg Gly
 500 505 510
 Met Leu Gly Ser Leu Leu Gly Gly Arg Arg Arg
 515 520

<210> 7880

<211> 1501

<212> PRT

<213> Enterobacter cloacae

<400> 7880

Ser Ser Val Gly Ser Pro Thr Ser Leu Gly Arg Phe Thr Asp Met Leu
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 20 25 30
 His Ile Glu Gly Glu Pro Ser His Lys Val Val Arg Thr Ala Ile His
 35 40 45
 Ala Leu Ala Arg Met Gln His Arg Gly Ala Ile Leu Ala Asp Gly Lys
 50 55 60
 Thr Gly Asp Gly Cys Gly Leu Leu Leu Gln Lys Pro Asp Arg Phe Phe
 65 70 75 80
 Arg Ile Val Ala Glu Glu Arg Gly Trp Arg Leu Ala Lys Asn Tyr Ala
 85 90 95
 Val Gly Met Leu Phe Leu Asn Gln Asp Pro Glu Lys Ala Ala Ala Ser
 100 105 110
 Arg Arg Ile Val Glu Glu Glu Leu Gln Arg Glu Thr Leu Ser Ile Val
 115 120 125
 Gly Trp Arg Asp Val Pro Thr Asn Glu Gly Val Leu Gly Glu Ile Ala
 130 135 140
 Leu Ser Ser Leu Pro Arg Ile Glu Gln Ile Phe Val Asn Ala Pro Ala
 145 150 155 160

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Gly | Trp | Arg | Pro | Arg | Asp | Met | Glu | Arg | Arg | Leu | Phe | Ile | Ala | Arg | Arg | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Arg | Ile | Glu | Lys | Arg | Leu | Gln | Asp | Asp | Lys | Glu | Phe | Tyr | Val | Cys | Ser | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Leu | Ser | Asn | Leu | Val | Asn | Ile | Tyr | Lys | Gly | Leu | Cys | Met | Pro | Ala | Asp | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Pro | Arg | Phe | Tyr | Leu | Asp | Leu | Ala | Asp | Leu | Arg | Leu | Glu | Ser | Ala | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Ile | Cys | Leu | Phe | His | Gln | Arg | Phe | Ser | Thr | Asn | Thr | Val | Pro | Arg | Trp | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Pro | Leu | Ala | Gln | Pro | Phe | Arg | Tyr | Leu | Ala | His | Asn | Gly | Glu | Ile | Asn | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Thr | Ile | Thr | Gly | Asn | Arg | Gln | Trp | Ala | Arg | Ala | Arg | Thr | Tyr | Lys | Phe | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Gln | Thr | Pro | Leu | Ile | Pro | Asp | Leu | His | Asp | Ala | Ala | Pro | Phe | Val | Asn | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Glu | Thr | Gly | Ser | Asp | Ser | Ser | Ser | Met | Asp | Asn | Met | Leu | Glu | Leu | Leu | | |
| | 290 | | | | | 295 | | | | 300 | | | | | | | |
| Leu | Ala | Gly | Gly | Met | Asp | Ile | Val | Arg | Ala | Met | Arg | Leu | Leu | Val | Pro | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Pro | Ala | Trp | Gln | Asn | Asn | Pro | Asp | Met | Asp | Pro | Glu | Leu | Arg | Ala | Phe | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Phe | Asp | Phe | Asn | Ser | Met | His | Met | Glu | Pro | Trp | Asp | Gly | Pro | Ala | Gly | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Ile | Val | Met | Ser | Asp | Gly | Arg | Phe | Ala | Ala | Cys | Asn | Leu | Asp | Arg | Asn | | |
| | | 355 | | | | | 360 | | | | | 365 | | | | | |
| Gly | Leu | Arg | Pro | Ala | Arg | Tyr | Val | Ile | Thr | Lys | Asp | Lys | Leu | Ile | Thr | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Cys | Ala | Ser | Glu | Val | Gly | Ile | Trp | Asp | Tyr | Gln | Pro | Asp | Glu | Val | Val | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Glu | Lys | Gly | Arg | Val | Gly | Pro | Gly | Glu | Leu | Met | Val | Ile | Asp | Thr | Arg | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Gly | Gly | Arg | Ile | Leu | His | Ser | Ala | Glu | Thr | Asp | Asn | Asp | Leu | Lys | Ser | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Arg | His | Pro | Tyr | Lys | Glu | Trp | Met | Glu | Lys | Asn | Val | Arg | Arg | Leu | Val | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Pro | Phe | Glu | Asp | Leu | Ser | Asp | Glu | Glu | Val | Gly | Ser | Arg | Glu | Leu | Asp | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Asp | Asp | Thr | Leu | Ala | Ser | Phe | Gln | Lys | Gln | Phe | Asn | Tyr | Ser | Ala | Glu | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Glu | Leu | Asp | Ser | Val | Ile | Arg | Val | Leu | Gly | Glu | Asn | Gly | Gln | Glu | Ala | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Val | Gly | Ser | Met | Gly | Asp | Asp | Thr | Pro | Phe | Ala | Val | Leu | Ser | Ser | Gln | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |
| Pro | Arg | Ile | Ile | Tyr | Asp | Tyr | Phe | Arg | Gln | Gln | Phe | Ala | Gln | Val | Thr | | |
| | | 515 | | | | | 520 | | | | | 525 | | | | | |
| Asn | Pro | Pro | Ile | Asp | Pro | Leu | Arg | Glu | Ala | His | Val | Met | Ser | Leu | Ala | | |
| | 530 | | | | | 535 | | | | | 540 | | | | | | |
| Thr | Ser | Ile | Gly | Arg | Glu | Met | Asn | Val | Phe | Cys | Glu | Ala | Glu | Gly | Gln | | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | | |
| Ala | His | Arg | Leu | Thr | Phe | Lys | Ser | Pro | Ile | Leu | Leu | Tyr | Ser | Asp | Phe | | |
| | | | | 565 | | | | | 570 | | | | | 575 | | | |
| Lys | Gln | Leu | Thr | Thr | Met | Thr | Glu | Glu | His | Tyr | Arg | Ala | Asp | Thr | Leu | | |
| | | | 580 | | | | | 585 | | | | | | 590 | | | |
| Asp | Ile | Thr | Phe | Asp | Val | Thr | Glu | Thr | Ser | Leu | Glu | Glu | Thr | Val | Asn | | |
| | | 595 | | | | | 600 | | | | | 605 | | | | | |
| Ala | Leu | Cys | Asp | Lys | Ala | Glu | Gln | Met | Val | Arg | Asn | Gly | Thr | Val | Leu | | |
| | 610 | | | | | 615 | | | | | 620 | | | | | | |
| Leu | Val | Leu | Ser | Asp | Arg | Asn | Ile | Ala | Lys | Asn | Arg | Leu | Pro | Val | Pro | | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | | |
| Ala | Pro | Met | Ala | Val | Gly | Ala | Ile | Gln | Thr | Arg | Leu | Val | Asp | Lys | Ser | | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | 645 | | | | | | 650 | | | | | | 655 | |
| Leu | Arg | Cys | Asp | Ala | Asn | Ile | Ile | Val | Glu | Thr | Ala | Ser | Ala | Arg | Asp | | |
| | | | 660 | | | | | 665 | | | | | 670 | | | | |
| Pro | His | His | Phe | Ala | Val | Leu | Leu | Gly | Phe | Gly | Ala | Thr | Ala | Ile | Tyr | | |
| | | 675 | | | | 680 | | | | | | 685 | | | | | |
| Pro | Tyr | Leu | Ala | Tyr | Glu | Thr | Leu | Ala | Arg | Leu | Val | Asp | Thr | Arg | Ala | | |
| | 690 | | | | 695 | | | | | | 700 | | | | | | |
| Ile | Asp | Lys | Asp | Tyr | Arg | Ala | Val | Met | Leu | Asn | Tyr | Arg | Asn | Gly | Ile | | |
| 705 | | | | 710 | | | | | | 715 | | | | 720 | | | |
| Asn | Lys | Gly | Leu | Tyr | Lys | Ile | Met | Ser | Lys | Met | Gly | Ile | Ser | Thr | Ile | | |
| | | | 725 | | | | | 730 | | | | | | 735 | | | |
| Ala | Ser | Tyr | Arg | Cys | Ser | Lys | Leu | Phe | Glu | Ala | Val | Gly | Leu | His | Asn | | |
| | | | 740 | | | | | 745 | | | | | 750 | | | | |
| Glu | Val | Ala | Asn | Leu | Cys | Phe | Gln | Gly | Val | Val | Ser | Arg | Ile | Gly | Gly | | |
| | | 755 | | | | 760 | | | | | | 765 | | | | | |
| Ala | Gly | Phe | Ala | Asp | Phe | Gln | Gln | Asp | Leu | Val | Asn | Leu | Ser | Lys | Arg | | |
| | 770 | | | | 775 | | | | | | 780 | | | | | | |
| Ala | Trp | Leu | Ala | Arg | Lys | Pro | Leu | Glu | Gln | Gly | Gly | Leu | Leu | Lys | Tyr | | |
| 785 | | | | 790 | | | | | | 795 | | | | 800 | | | |
| Val | His | Gly | Gly | Glu | Tyr | His | Ala | Tyr | Asn | Pro | Asp | Val | Val | Arg | Thr | | |
| | | | 805 | | | | | 810 | | | | | | 815 | | | |
| Leu | Gln | Gln | Ala | Val | Gln | Ser | Gly | Glu | Tyr | Ser | Asp | Tyr | Gln | Gln | Tyr | | |
| | | | 820 | | | | | 825 | | | | | 830 | | | | |
| Ala | Glu | Leu | Val | Asn | Asn | Arg | Pro | Ala | Ala | Thr | Leu | Arg | Asp | Leu | Ile | | |
| | | 835 | | | | 840 | | | | | | 845 | | | | | |
| Ala | Leu | Asn | Pro | Gly | Glu | Glu | Ala | Val | Ser | Ile | Asp | Glu | Val | Glu | Pro | | |
| | 850 | | | 855 | | | | | | 860 | | | | | | | |
| Ala | Ser | Glu | Leu | Phe | Lys | Arg | Phe | Asp | Thr | Ala | Ala | Met | Ser | Ile | Gly | | |
| 865 | | | | 870 | | | | | 875 | | | | | 880 | | | |
| Ala | Leu | Ser | Pro | Glu | Ala | His | Glu | Ala | Leu | Ala | Glu | Ala | Met | Asn | Ser | | |
| | | | 885 | | | | | 890 | | | | | 895 | | | | |
| Ile | Gly | Gly | Asn | Ser | Asn | Ser | Gly | Glu | Gly | Gly | Glu | Asp | Pro | Ala | Arg | | |
| | | | 900 | | | | | 905 | | | | | 910 | | | | |
| Tyr | Gly | Thr | Asn | Lys | Val | Ser | Arg | Ile | Lys | Gln | Val | Ala | Ser | Gly | Arg | | |
| | | 915 | | | | 920 | | | | | | 925 | | | | | |
| Phe | Gly | Val | Thr | Pro | Ala | Tyr | Leu | Val | Asn | Ala | Asp | Val | Ile | Gln | Ile | | |
| | 930 | | | | | 935 | | | | | 940 | | | | | | |
| Lys | Val | Ala | Gln | Gly | Ala | Lys | Pro | Gly | Glu | Gly | Gly | Gln | Leu | Pro | Gly | | |
| 945 | | | | 950 | | | | | 955 | | | | | 960 | | | |
| Asp | Lys | Val | Thr | Pro | Tyr | Ile | Ala | Lys | Leu | Arg | Tyr | Ser | Val | Pro | Gly | | |
| | | | 965 | | | | | 970 | | | | | | 975 | | | |
| Val | Thr | Leu | Ile | Ser | Pro | Pro | Pro | His | His | Asp | Ile | Tyr | Ser | Ile | Glu | | |
| | | 980 | | | | | | 985</ | | | | | | | | | |

Lys Leu Arg Lys Asn His Tyr His Gly Leu Pro Phe Lys Val Thr Asn
 1140 1145 1150
 Tyr Phe Asp Phe Ile Ala Arg Glu Thr Arg Glu Leu Met Ala Gln Leu
 1155 1160 1165
 Gly Val Lys Arg Leu Val Asp Leu Ile Gly Arg Thr Asn Leu Leu Lys
 1170 1175 1180
 Glu Leu Glu Gly Phe Thr Ala Lys Gln Gln Lys Leu Glu Leu Ser Lys
 1185 1190 1195 1200
 Leu Leu Glu Thr Ala Gln Pro His Pro Gly Lys Ala Val Tyr Cys Thr
 1205 1210 1215
 Glu Asn Asn Pro Pro Phe Asp Asn Gly Val Leu Asn Ala Gln Leu Leu
 1220 1225 1230
 Gln Gln Ala Lys Pro Tyr Val Asp Glu Lys Gln Ser Lys Thr Phe Trp
 1235 1240 1245
 Phe Asp Ile Arg Asn Thr Asp Arg Ser Val Gly Ala Ser Leu Ser Gly
 1250 1255 1260
 Tyr Ile Ala Gln Thr His Gly Asp Gln Gly Leu Ala Ser Asp Pro Ile
 1265 1270 1275 1280
 Thr Ala His Phe Ser Gly Thr Ala Gly Gln Ser Phe Gly Val Trp Asn
 1285 1290 1295
 Ala Gly Gly Val Glu Leu Tyr Leu Thr Gly Asp Ala Asn Asp Tyr Val
 1300 1305 1310
 Gly Lys Gly Met Ala Gly Gly Leu Leu Ala Val Arg Pro Pro Val Gly
 1315 1320 1325
 Ser Ala Phe Arg Ser His Glu Ala Ser Ile Ile Gly Asn Thr Cys Leu
 1330 1335 1340
 Tyr Gly Ala Thr Gly Gly Arg Leu Phe Ala Ala Gly Arg Ala Gly Glu
 1345 1350 1355 1360
 Arg Phe Ala Val Arg Asn Ser Gly Ala Ile Thr Val Val Glu Gly Ile
 1365 1370 1375
 Gly Asp Asn Gly Cys Glu Tyr Met Thr Gly Gly Ile Val Cys Val Leu
 1380 1385 1390
 Gly Lys Thr Gly Val Asn Phe Gly Ala Gly Met Thr Gly Gly Phe Ala
 1395 1400 1405
 Tyr Val Leu Asp Glu Asp Gly Glu Phe Arg Lys Arg Val Asn Pro Glu
 1410 1415 1420
 Leu Val Glu Val Leu Asp Val Asp Thr Leu Ala Ile His Glu Glu His
 1425 1430 1435 1440
 Leu Arg Gly Leu Ile Thr Glu His Val Gln His Thr Gly Ser Ser Arg
 1445 1450 1455
 Gly Glu Glu Ile Leu Ala Asn Trp Pro Ala Phe Ser Ala Lys Phe Ala
 1460 1465 1470
 Leu Val Lys Pro Lys Ser Ser Asp Val Lys Ala Leu Leu Gly His Arg
 1475 1480 1485
 Ser Arg Ser Ala Ala Glu Leu Arg Val Gln Ala Gln
 1490 1495 1500

<210> 7881

<211> 476

<212> PRT

<213> Enterobacter cloacae

<400> 7881

Gly Ile Gln Met Ser Gln Asn Val Tyr Gln Phe Ile Asp Leu Gln Arg
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 Val Asp Pro Pro Lys Lys Pro Leu Lys Ile Arg Lys Ile Glu Phe Val
 20 25 30
 Glu Ile Tyr Glu Pro Phe Ser Glu Gly Gln Ala Lys Ala Gln Ala Asp
 35 40 45
 Arg Cys Leu Ser Cys Gly Asn Pro Tyr Cys Glu Trp Lys Cys Pro Val
 50 55 60

His Asn Tyr Ile Pro Asn Trp Leu Lys Leu Ala Asn Glu Gly Arg Ile
 65 70 75 80
 Phe Glu Ala Ala Glu Leu Ser His Gln Thr Asn Thr Leu Pro Glu Val
 85 90 95
 Cys Gly Arg Val Cys Pro Gln Asp Arg Leu Cys Glu Gly Ser Cys Thr
 100 105 110
 Leu Asn Asp Glu Phe Gly Ala Val Thr Ile Gly Asn Ile Glu Arg Tyr
 115 120 125
 Ile Asn Asp Lys Ala Phe Glu Met Gly Trp Arg Pro Asp Met Thr Gly
 130 135 140
 Val Arg Gln Thr Asp Lys Arg Val Ala Ile Ile Gly Ala Gly Pro Ala
 145 150 155 160
 Gly Leu Ala Cys Ala Asp Val Leu Thr Arg Asn Gly Val Lys Ala Val
 165 170 175
 Val Phe Asp Arg His Pro Glu Ile Gly Gly Leu Leu Thr Phe Gly Ile
 180 185 190
 Pro Ala Phe Lys Leu Glu Lys Glu Val Met Thr Arg Arg Arg Glu Ile
 195 200 205
 Phe Thr Gly Met Gly Ile Glu Phe Lys Leu Asn Thr Glu Val Gly Arg
 210 215 220
 Asp Val Gln Leu Asp Asp Leu Leu Lys Asp Tyr Asp Ala Val Phe Leu
 225 230 235 240
 Gly Val Gly Thr Tyr Gln Ser Met Arg Gly Gly Leu Glu Asn Glu Asp
 245 250 255
 Ala Pro Gly Val Tyr Asp Ala Leu Pro Phe Leu Ile Ala Asn Thr Lys
 260 265 270
 Gln Leu Met Gly Tyr Gly Glu Thr Ala Asp Glu Pro Phe Val Ser Met
 275 280 285
 Glu Gly Lys Arg Val Val Val Leu Gly Gly Gly Asp Thr Ala Met Asp
 290 295 300
 Cys Val Arg Thr Ser Ile Arg Gln Asn Ala Ala His Val Ile Cys Ala
 305 310 315 320
 Tyr Arg Arg Asp Glu Glu Asn Met Pro Gly Ser Lys Arg Glu Val Lys
 325 330 335
 Asn Ala Arg Glu Glu Gly Val Glu Phe Gln Phe Asn Ile Gln Pro Leu
 340 345 350
 Gly Ile Glu Val Asn Ala Asn Gly Lys Val Ser Gly Val Lys Met Ala
 355 360 365
 Arg Thr Glu Met Gly Ala Pro Asp Ala Lys Gly Arg Arg Arg Ala Glu
 370 375 380
 Ile Val Ala Gly Ser Glu His Val Ile Pro Ala Asp Ala Val Val Met
 385 390 395 400
 Ala Phe Gly Phe Arg Pro His Ser Met Glu Trp Leu Ala Lys His Ser
 405 410 415
 Val Glu Leu Asp Ser Gln Gly Arg Ile Ile Ala Pro Glu Gly Ser Asp
 420 425 430
 Asn Ala Phe Gln Thr Ser Asn Pro Lys Ile Phe Ala Gly Gly Asp Ile
 435 440 445
 Val Arg Gly Ser Asp Leu Val Val Thr Ala Ile Ala Glu Gly Arg Lys
 450 455 460
 Ala Ala Glu Gly Ile Met Asn Phe Leu Glu Val
 465 470 475

<210> 7882

<211> 555

<212> PRT

<213> Enterobacter cloacae

<400> 7882

Thr Lys Phe Trp Glu Thr Met Ser Arg Phe Phe Phe Asn Asp Arg Lys
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Gln Leu Val Asn Asp Ala Ile Glu Gly Ile Leu Leu Ser Ala Pro His
 20 25 30
 Gly Asn Leu Val Lys Leu Asp Ile Asp Pro Ala Ile Arg Val Val Ala
 35 40 45
 Arg Gly Asp Trp Asp Lys Ser Arg Val Ala Val Ile Ser Gly Gly Gly
 50 55 60
 Ser Gly His Glu Pro Ala His Ala Gly Phe Val Gly Lys Gly Met Leu
 65 70 75 80
 Thr Ala Ala Val Cys Gly Asp Leu Phe Ala Ser Pro Ser Val Asp Ala
 85 90 95
 Val Leu Asn Ala Ile Val Ala Val Thr Gly Asp Arg Gly Cys Leu Leu
 100 105 110
 Ile Val Lys Asn Tyr Thr Gly Asp Arg Leu Asn Phe Gly Leu Ala Ala
 115 120 125
 Glu Lys Ala Lys Arg Tyr Gly Leu Lys Val Glu Met Val Ile Val Ala
 130 135 140
 Asp Asp Ile Ala Leu Pro Asp Asn Lys Gln Pro Arg Gly Ile Ala Gly
 145 150 155 160
 Thr Ala Leu Val His Lys Ile Ala Gly Tyr Ala Ala Glu Gln Gly Lys
 165 170 175
 Ser Leu Asn Asp Val Arg Asp Ile Ala Gln Gln Ala Cys Asp Asn Leu
 180 185 190
 Trp Ser Leu Gly Val Ala Met Gln Thr Cys Asn Leu Pro Gly Ser Asp
 195 200 205
 Asp Glu Gly Gly Arg Ile Lys Gln Gly His Val Glu Leu Gly Leu Gly
 210 215 220
 Ile His Gly Glu Pro Gly Ala Ser Val Val Asp Thr Gln Asn Ser Lys
 225 230 235 240
 Ala Ile Ile Asp Thr Leu Val Thr Pro Leu Arg Ala Gln Ala Gly Glu
 245 250 255
 Gly Arg Phe Ala Val Leu Ile Asn Asn Leu Gly Gly Val Ser Ala Leu
 260 265 270
 Glu Met Ala Leu Leu Thr Lys Glu Leu Ala His Ser Ala Leu Lys Glu
 275 280 285
 Asn Ile Ala Tyr Leu Ile Gly Pro Ala Pro Leu Val Ser Ala Leu Asp
 290 295 300
 Met Lys Gly Phe Ser Leu Thr Leu Leu Lys Leu Asn Asp Phe Phe Glu
 305 310 315 320
 Lys Ala Ile His Ala Glu Val Glu Thr Leu Gly Trp Gln Lys Pro Val
 325 330 335
 Ala Phe Ala Pro Leu Arg Thr Val Pro His Ser Ala Leu His Asp Arg
 340 345 350
 Val Glu Tyr Ala Pro Ser Asp Asn Thr Glu Val Ser Glu Ala Val Ala
 355 360 365
 Ser Val Thr Lys Thr Leu Ile Gln Leu Glu Asn Arg Leu Asn Ala Leu
 370 375 380
 Asp Ala Lys Val Gly Asp Gly Asp Thr Gly Ser Thr Phe Ala Gln Gly
 385 390 395 400
 Ala Arg Asp Ile Thr Gln Arg Leu Glu Glu Asn Asn Leu Pro Leu Asn
 405 410 415
 Asp Val Pro Thr Leu Leu Leu Leu Val Gly Glu Arg Leu Ala Thr Val
 420 425 430
 Met Gly Gly Ser Ser Gly Val Leu Met Ser Ile Phe Phe Thr Ala Ala
 435 440 445
 Gly Gln Lys Leu His Asp Gly Gln Pro Leu Pro Glu Ala Leu Leu Ser
 450 455 460
 Gly Leu Ala Gln Met Lys Gln Tyr Gly Gly Ala Asp Leu Gly Asp Arg
 465 470 475 480
 Thr Leu Ile Asp Ala Leu Gln Pro Ala Leu Glu Ala Leu Gln Lys Gly
 485 490 495
 Asn Ile Gln Ala Ala Ala Gln Ala Ala Gln Gln Gly Ala Glu Ala Thr


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<210> 7883
<211> 344
<212> PRT
<213> Enterobacter cloacae
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|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| Lys 1 | Pro | Ser | Arg | Ala 5 | Ile | Asp | Pro | Gly | His 10 | Arg | Arg | Gln | Arg | Leu 15 | Lys |
| Met | Ala | Gly | Leu 20 | Ser | Pro | Phe | Phe | Gly 25 | Thr | Val | Tyr | Gln 30 | Ile | Met | Gln |
| Leu | Gln | Lys 35 | Leu | Val | Asn | Met | Phe 40 | Gly | Gly | Asp | Leu 45 | Leu | Gln | Arg | Tyr |
| Gly | Gln 50 | Lys | Val | His | Lys 55 | Leu | Thr | Leu | His | Gly 60 | Gly | Phe | Ser | Cys | Pro |
| Asn 65 | Arg | Asp | Gly | Thr 70 | Ile | Gly | Arg | Gly | Gly 75 | Cys | Thr | Phe | Cys | Asn 80 | Val |
| Ala | Ser | Phe | Ala 85 | Asp | Glu | Ala | Gln | Gln | His 90 | Lys | Ser | Ile | Ala | Glu 95 | Gln |
| Leu | Ala | His | Gln 100 | Ala | Ser | Leu | Val | Asn 105 | Arg | Ala | Lys | Gln | Tyr | Leu | Ala |
| Tyr | Phe | Gln 115 | Ala | Tyr | Thr | Ser | Thr 120 | Trp | Ala | Glu | Val | Gln 125 | Val | Leu | Arg |
| Ser | Met 130 | Tyr | Gln | Gln | Ala | Val 135 | Ala | Gln | Ala | Asn 140 | Ile | Val | Gly | Leu | Cys |
| Val 145 | Gly | Thr | Arg | Pro | Asp 150 | Cys | Val | Pro | Asp | Ala 155 | Val | Leu | Asp | Leu | Leu |
| Ser | Glu | Tyr | Lys | Glu 165 | Lys | Gly | Tyr | Glu | Ile 170 | Trp | Leu | Glu | Leu | Gly 175 | Leu |
| Gln | Thr | Ala | His 180 | Asp | Lys | Thr | Leu | His 185 | Arg | Ile | Asn | Arg | Gly 190 | His | Asp |
| Phe | Ala | Cys 195 | Tyr | Gln | Arg | Thr | Thr 200 | Arg | Leu | Ala | Arg | Gln 205 | Arg | Gly | Leu |
| Lys | Val 210 | Cys | Ser | His | Leu | Ile 215 | Val | Gly | Leu | Pro | Gly 220 | Glu | Gly | Arg | Gln |
| His 225 | Gly | Leu | Glu | Thr 230 | Leu | Glu | Lys | Val | Val | Glu 235 | Thr | Gly | Val | Asp | Gly |
| Ile | Lys | Leu | His 245 | Pro | Leu | His | Ile | Val | Lys 250 | Gly | Ser | Ile | Met | Ala 255 | Lys |
| Ala | Trp | Glu | Ala 260 | Gly | Arg | Leu | Cys | Gly 265 | Ile | Glu | Leu | Asp | Asp 270 | Tyr | Thr |
| Val | Thr | Ala 275 | Gly | Glu | Met | Ile | Arg | His 280 | Thr | Pro | Pro | Glu 285 | Ile | Val | Tyr |
| His | Arg 290 | Ile | Ser | Ala | Ser | Ala 295 | Arg | Arg | Pro | Thr | Leu 300 | Leu | Ala | Pro | Leu |
| Trp 305 | Cys | Glu | Asn | Arg | Trp 310 | Thr | Gly | Met | Leu | Glu 315 | Ile | Asn | Arg | Tyr | Leu |
| Gln | Glu | Asn | Gly | Val 325 | Gln | Gly | Ser | Ala | Leu 330 | Gly | Arg | Pro | Trp | Val 335 | Pro |
| Pro | Leu | Pro | Ala 340 | Thr | Ala | Ala | | | | | | | | | |

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<210> 7884
<211> 316
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<212> PRT

<213> Enterobacter cloacae

<400> 7884

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| Gln | Thr | Ser | Gln | His | Ala | Ala | Tyr | Tyr | Leu | Val | Gly | Asn | Leu | Thr | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ala | Phe | Cys | His | Gly | Leu | Asn | His | Ala | Ile | Ala | Phe | Ala | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Pro | Gly | Ala | Ala | Glu | Gln | Asn | Ile | Phe | Gln | Pro | Ala | Glu | Asn | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Val | His | Gly | Asn | Arg | Leu | Pro | Phe | Cys | Gly | Arg | Arg | Ile | Leu | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Gly | Ser | Arg | Leu | His | Pro | Phe | Leu | Gln | His | Leu | Glu | Arg | Arg | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ile | His | Leu | Val | Phe | Ile | Leu | Ser | Val | His | Arg | Gly | Val | Val | Asn |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Ala | Val | Ala | Phe | Ile | Val | Arg | Tyr | Arg | Thr | His | Ala | Arg | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Asn | His | His | Arg | Ala | Leu | Asp | Asn | Cys | Arg | Ala | Ala | Phe | Cys | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Glu | Arg | Asn | Gln | Arg | Phe | Thr | Gly | Ala | Gln | Arg | Leu | Asn | Gly | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Phe | Gly | Ile | Lys | Gly | Arg | Ile | Asp | Thr | His | Gly | Leu | Arg | Arg | Gly | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Arg | Phe | Leu | Ile | Phe | Arg | Arg | Lys | Gly | Ala | Gln | Gly | Val | Leu | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Val | Thr | Gln | Leu | Pro | Gln | Tyr | Val | Val | Arg | Asn | Ile | Arg | Arg | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Arg | His | Lys | Pro | Asp | Pro | Asp | Ala | Phe | Gly | Ala | Asp | Gln | Ala | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asn | Leu | Phe | Asn | Phe | Ile | Gln | Gln | His | Leu | Arg | Arg | Val | Val | Lys | Gln |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Val | Arg | Phe | Val | Lys | Glu | Glu | His | Gln | Phe | Gly | Phe | Phe | Gln | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Cys | Phe | Arg | Gln | Leu | Phe | Val | Gln | Phe | Arg | Glu | His | Pro | Gln | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Gly | Gly | Val | Lys | Leu | Arg | His | Leu | Val | Glu | Leu | Leu | Cys | Ala | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asn | Val | Asp | Asp | Ala | Phe | Ala | Ala | Ala | Val | Gly | Thr | His | Pro | Val | Phe |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Ile | Gln | His | Trp | Leu | Ala | Glu | Glu | Val | Phe | Gly | Ala | Leu | Leu | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Arg | Gln | Glu | Pro | Ala | Leu | Asn | Gly | Ala | His | | | | | |
| 305 | | | | | 310 | | | | | 315 | | | | | |

<210> 7885

<211> 225

<212> PRT

<213> Enterobacter cloacae

<400> 7885

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Met | Lys | Lys | Val | Val | Leu | Ala | Ser | Met | Leu | Val | Met | Phe | Val | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ala | Phe | Ala | Ala | Asp | Thr | Ala | Val | Leu | Lys | Val | Thr | Gly | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Asn | Ser | Ser | Cys | Ile | Pro | Glu | Ile | Ser | Gly | Gly | Gly | Val | Val | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Gly | Thr | Ile | His | Leu | Ser | Ala | Leu | Asn | Thr | Thr | Ala | Ile | Asn | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Gly | Gln | Lys | Asp | Phe | Ser | Leu | Ser | Ile | Thr | Cys | Pro | Ala | Leu | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Lys Ala Gly Phe Ser Val Ser Asp Asp Arg Thr Gly Thr Ala Pro Asn
 85 90 95
 Ile Met Val Lys Asp Gly Ala Gly Asn Gly Asn Asp Ile Ile Gln Pro
 100 105 110
 Leu Asn Met Phe Gly Leu Asn Lys Thr Ala Gly Asn Val Asn Ile Gly
 115 120 125
 Asn Tyr Thr Ile Phe Val Lys Asn Asp Thr Ile Thr Ala Asp Gly Ala
 130 135 140
 Thr Val Gly Ala Ile Tyr Ser Ala Asp Asn Gly Thr Ser Trp Ser Asp
 145 150 155 160
 Asn Gly Thr Leu Met Val Asn Asp Gly Ser Gln Ile Val Ser Val Ala
 165 170 175
 Thr Val Gly Ser Thr Ala Pro Val Ala Phe Lys Asn Leu Val Ile Pro
 180 185 190
 Met Ala Val Ser Ala Ala Ile Gln Asp Thr Asn Thr Leu Ala Ile Thr
 195 200 205
 Asp Asp Thr Asn Met Asp Gly Gln Ala Thr Phe Thr Ile Lys Tyr Leu
 210 215 220

225

<210> 7886

<211> 180

<212> PRT

<213> Enterobacter cloacae

<400> 7886

Leu Pro Gly Thr Gln Thr Ser Arg Gly Tyr Glu Ile Met Ser Thr Ala
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 Lys Leu Val Lys Thr Lys Ala Ser Asn Leu Leu Tyr Thr Arg Asn Asp
 20 25 30
 Val Ser Asp Ser Asp Lys Lys Ala Thr Ile Glu Leu Leu Asn Arg Gln
 35 40 45
 Val Val Gln Phe Ile Asp Leu Ser Leu Ile Thr Lys Gln Ala His Trp
 50 55 60
 Asn Met Arg Gly Ala Asn Phe Ile Ala Val His Glu Met Leu Asp Gly
 65 70 75 80
 Phe Arg Thr Ala Leu Val Thr His Leu Asp Thr Met Ala Glu Arg Ala
 85 90 95
 Val Gln Leu Gly Gly Val Ala Leu Gly Thr Thr Gln Val Ile Asn Ser
 100 105 110
 Lys Thr Pro Leu Lys Ser Tyr Pro Leu Asp Ile His Thr Val Gln Asp
 115 120 125
 His Leu Lys Glu Leu Ala Asp Arg Tyr Ala Ile Val Ala Asn Asp Val
 130 135 140
 Arg Lys Ala Ile Gly Glu Ala Lys Asp Glu Asp Thr Ala Asp Ile Phe
 145 150 155 160
 Thr Ala Ala Ser Arg Asp Leu Asp Gln Phe Leu Trp Phe Ile Glu Ser
 165 170 175
 Asn Ile Glu
 180

<210> 7887

<211> 247

<212> PRT

<213> Enterobacter cloacae

<400> 7887

Lys Lys Asp Glu Asn Pro Val Ile Glu Phe Lys Asn Val Ser Lys His
 1 5 10 15
 Phe Gly Pro Thr Gln Val Leu His Asn Ile Asp Leu Asn Ile Arg Gln

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 20 | | | | | 25 | | | | 30 | | | | | |
| Gly | Glu | Val | Val | Val | Ile | Ile | Gly | Pro | Ser | Gly | Ser | Gly | Lys | Ser | Thr | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Leu | Leu | Arg | Cys | Ile | Asn | Lys | Leu | Glu | Glu | Ile | Thr | Ser | Gly | Asp | Leu | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Ile | Val | Asp | Gly | Leu | Lys | Val | Asn | Asp | Pro | Lys | Val | Asp | Glu | Arg | Leu | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Ile | Arg | Gln | Glu | Ala | Gly | Met | Val | Phe | Gln | Gln | Phe | Tyr | Leu | Phe | Pro | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| His | Leu | Thr | Ala | Leu | Glu | Asn | Val | Met | Phe | Gly | Pro | Leu | Arg | Val | Arg | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Gly | Ala | Ser | Lys | Ala | Ala | Ala | Glu | Ala | Leu | Ala | Lys | Asp | Leu | Leu | Ala | | |
| | 115 | | | | | | 120 | | | | | 125 | | | | | |
| Lys | Val | Gly | Leu | Ala | Glu | Arg | Ala | His | His | Tyr | Pro | Ser | Glu | Leu | Ser | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gly | Gly | Gln | Gln | Gln | Arg | Val | Ala | Ile | Ala | Arg | Ala | Leu | Ala | Val | Lys | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Pro | Lys | Met | Met | Leu | Phe | Asp | Glu | Pro | Thr | Ser | Ala | Leu | Asp | Pro | Glu | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Leu | Arg | His | Glu | Val | Leu | Lys | Val | Met | Gln | Asp | Leu | Ala | Glu | Glu | Gly | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Met | Thr | Met | Val | Ile | Val | Thr | His | Glu | Ile | Gly | Phe | Ala | Glu | Lys | Val | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Ala | Ser | Arg | Leu | Ile | Phe | Ile | Asp | Lys | Gly | Arg | Ile | Ala | Glu | Asp | Gly | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Asn | Pro | Gln | Thr | Leu | Ile | Ala | Asn | Pro | Pro | Ser | Gln | Arg | Leu | Gln | Glu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Phe | Leu | Gln | His | Val | Ser | | | | | | | | | | | | |
| | | | | 245 | | | | | | | | | | | | | |

<210> 7888

<211> 776

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (539)

<400> 7888

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| Pro | His | Thr | Glu | Pro | Gly | Met | Pro | Gly | Phe | Phe | Met | Pro | Asp | Cys | Ser | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Gln | Lys | Leu | Pro | Ser | Ala | Pro | Arg | Ala | Leu | Tyr | Leu | Ser | Phe | Cys | Thr | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | |
| Ile | Phe | Leu | Ser | Glu | Asp | Ala | Val | Pro | Trp | Ile | Leu | Leu | Leu | Leu | Phe | | |
| | 35 | | | | | 40 | | | | | 45 | | | | | | |
| Ser | Leu | Phe | Ser | Ala | Pro | Ser | Leu | Ala | Val | Thr | Leu | Pro | Gly | Val | Thr | | |
| | 50 | | | | | 55 | | | | 60 | | | | | | | |
| Thr | Gly | Ala | Thr | Ala | Ser | Gln | Gln | Asn | Ala | Pro | Pro | Glu | Pro | Asp | Ala | | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | | | |
| Glu | Lys | Lys | Lys | Ala | Ala | Tyr | Gly | Ala | Leu | Ala | Asp | Val | Leu | Glu | Asn | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Asp | Thr | Ser | Arg | Gln | Glu | Leu | Ile | Asp | Gln | Leu | Arg | Lys | Val | Ala | Ala | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Thr | Pro | Pro | Gln | Asp | Pro | Val | Pro | Ala | Val | Ala | Pro | Pro | Glu | Ala | Glu | | |
| | 115 | | | | | | 120 | | | | | 125 | | | | | |
| Glu | Glu | Lys | Thr | Val | Leu | Glu | Asn | Val | Thr | Asp | Ile | Ser | Arg | Arg | Tyr | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | |
| Gly | Glu | Ala | Leu | Ser | Ser | Arg | Phe | Ala | Gln | Leu | Tyr | Arg | Asn | Leu | Val | | |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 | | |
| Gly | Thr | Ser | His | Lys | Pro | Phe | Asn | Pro | His | Thr | Phe | Ser | Ala | Ala | Ala | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Gln | Phe | Ala | Ile | Leu | Ala | Gly | Ala | Val | Phe | Ile | Phe | Tyr | Trp | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Arg | Leu | Ser | Val | Trp | Pro | Leu | Tyr | Arg | Lys | Met | Gly | Gln | Trp | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Lys | Lys | Asn | Gln | His | Lys | Ser | Ser | Trp | Leu | His | Leu | Pro | Ala | Met |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ile | Thr | Gly | Ala | Phe | Val | Ile | Asp | Leu | Leu | Leu | Leu | Ala | Leu | Thr | Leu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Phe | Val | Gly | Gln | Leu | Leu | Ala | Asp | Arg | Leu | Asn | Thr | Gly | Asn | Lys | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Ala | Phe | Gln | Gln | Gly | Leu | Phe | Leu | Asn | Ala | Phe | Ala | Leu | Ile | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Phe | Lys | Ala | Leu | Leu | Arg | Leu | Ile | Phe | Cys | Pro | Arg | Val | Pro | Asp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Arg | Pro | Phe | Ala | Ile | Ser | Asp | Gln | Ser | Ala | Lys | Tyr | Trp | Ala | Val |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Arg | Leu | Ser | Val | Leu | Ser | Gly | Leu | Ile | Gly | Tyr | Gly | Leu | Leu | Val | Ala |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Val | Pro | Ile | Ile | Ser | Asn | Gln | Val | Asn | Val | Gln | Phe | Gly | Ala | Leu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Asn | Val | Leu | Ile | Met | Leu | Cys | Ile | Thr | Val | Trp | Ala | Leu | Tyr | Leu | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Phe | His | Asn | Lys | Lys | Ala | Ile | Thr | Asp | Ser | Leu | Leu | His | Leu | Ala | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Arg | Ser | Leu | Ser | Phe | Phe | Ser | Leu | Phe | Ile | Arg | Ala | Phe | Ala | Leu | Val |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Trp | His | Trp | Leu | Ala | Ser | Ala | Tyr | Phe | Ile | Val | Leu | Cys | Phe | Phe | Ser |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Leu | Phe | Asp | Pro | Gly | Asn | Ser | Leu | Lys | Phe | Met | Met | Gly | Ala | Thr | Phe |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Lys | Ser | Leu | Ala | Ile | Ile | Gly | Ile | Ala | Ala | Phe | Val | Ser | Gly | Leu | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ser | Arg | Trp | Leu | Ser | Lys | Thr | Ile | Thr | Leu | Ser | Pro | Gln | Val | Gln | Arg |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asn | Tyr | Pro | Glu | Leu | Gln | Lys | Arg | Val | Asn | Gly | Trp | Met | Thr | Val | Ser |
| | | 450 | | | | 455 | | | | | 460 | | | | |
| Leu | Lys | Val | Ala | Arg | Ile | Leu | Thr | Val | Cys | Val | Ala | Ile | Met | Leu | Leu |
| 465 | | | | 470 | | | | | 475 | | | | | | 480 |
| Leu | Asn | Ala | Trp | Gly | Leu | Phe | Asp | Phe | Trp | Asn | Trp | Leu | His | Asn | Gly |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ala | Gly | Glu | Lys | Thr | Val | Asp | Ile | Leu | Ile | Arg | Ile | Ala | Leu | Ile | Leu |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Phe | Phe | Ser | Ala | Val | Gly | Trp | Thr | Leu | Leu | Ala | Ser | Leu | Ile</ | | |

Asn Phe Val Arg Gly Ile Gly Ser Val Val Ala Asn Tyr Asp Val Asp
 660 665 670
 Arg His Glu Asp Ala Asp Lys Ala Lys Gln Ala Leu Arg Asp Ala Val
 675 680 685
 Asn Glu Leu Met Glu Met Glu Asp Ile Arg Gly Leu Val Ile Gly Glu
 690 695 700
 Pro Ser Phe Ala Gly Ile Val Gly Leu Thr Asn Thr Ala Phe Thr Leu
 705 710 715 720
 Arg Val Ser Phe Thr Thr Gln Pro Leu Lys Gln Trp Thr Val Arg Phe
 725 730 735
 Ala Leu Asp Ser Met Val Lys Lys His Phe Asp Leu Ala Asn Val Arg
 740 745 750
 Ala Pro Val Gln Thr Tyr Gln Val Leu Ser Pro Pro Ala Ser Pro Leu
 755 760 765
 Pro Pro Gln Glu Pro Thr Leu
 770 775

<210> 7889

<211> 100

<212> PRT

<213> Enterobacter cloacae

<400> 7889

Glu Glu Ser Pro Val Val Ser Pro Glu Asp Val Ile Met Lys Lys Tyr
 1 5 10 15
 Leu Thr Phe Ile Ile Ala Gly Ala Leu Ala Gly Ala Ser Phe Ser Ala
 20 25 30
 Trp Ser Val Gln Pro Leu Thr Asp Ser Asn Asp Thr Ser Gln Leu Arg
 35 40 45
 Ala Ala Gly Thr Val Ser Val Ser Arg Ala Ser Asn Leu Asp Asp Leu
 50 55 60
 Gln Asn Lys Leu Ala Glu Lys Ala Arg Gln Glu Gly Ala Lys Gly Phe
 65 70 75 80
 Val Val Asn Ala Ala Gly Gly Asp Asn His Met Tyr Gly Thr Ala Thr
 85 90 95
 Ile Tyr Lys
 100

<210> 7890

<211> 861

<212> PRT

<213> Enterobacter cloacae

<400> 7890

Thr Arg Ser Leu Ile Val Leu Pro Gly Asn Lys Ile Ile Met Tyr Ser
 1 5 10 15
 His Lys Lys Pro Phe Thr Cys Arg Phe Ser Ser Leu Leu Met Ala Ile
 20 25 30
 Cys Cys Leu Ala Met Ala Ile Phe Ala Gln Gln Val Leu Ala Asp Asp
 35 40 45
 Tyr Phe Asn Pro Ala Leu Leu Asp Ile Asp Asn Pro Gln Gln Gly Lys
 50 55 60
 Thr Asp Leu Ser Val Tyr Glu Lys Gly Pro Gly Gln Ala Pro Gly Lys
 65 70 75 80
 Tyr Gln Val Ala Ile Phe Ile Asn Asn Asn Lys Ile Asp Thr Arg Asp
 85 90 95
 Val Thr Phe Asn Leu Val Lys Asp Pro Gln Gly Thr Ser Thr Leu Gln
 100 105 110
 Pro Cys Phe Thr Leu Asp Glu Leu Lys Ser Leu Gly Ile Lys Thr Gln
 115 120 125
 Lys Tyr Pro Gln Leu Arg Ala Lys Gly Gln Cys Ala Asp Leu His Ala

| | | |
|-------------------------|---------------------|---------------------|
| 130 | 135 | 140 |
| Ile Pro Ser Ala Ser Ala | Thr Phe Arg Val Arg | Asn Gln Gln Leu Leu |
| 145 | 150 | 155 |
| Leu Ser Ile Pro Gln Lys | Ala Leu Gly Gln Val | Pro Arg Gly Tyr Ile |
| 165 | 170 | 175 |
| Asp Pro Lys Glu Phe Asp | Glu Gly Ile Asn Ala | Gly Leu Leu Asn Tyr |
| 180 | 185 | 190 |
| Ser Val Asn Ala Ser Gln | Ser His Ala Arg Gln | Gln Gly Glu Glu Asn |
| 195 | 200 | 205 |
| Ser Ser Ser Gln Tyr Val | Asn Leu Arg Pro Gly | Phe Asn Ile Gly Ala |
| 210 | 215 | 220 |
| Trp Arg Val Arg Asn Tyr | Ser Thr Trp Asn Arg | Ser Thr Thr Gly His |
| 225 | 230 | 235 |
| Glu Glu Glu Gln Lys Phe | Thr Ser Val Tyr Thr | Tyr Ala Gln Arg Asp |
| 245 | 250 | 255 |
| Ile Val Ala Met Lys Ser | Asp Val Thr Val Gly | Gln Ser Thr Ser Pro |
| 260 | 265 | 270 |
| Ser Asp Val Phe Asp Ser | Val Pro Tyr Thr Gly | Val Glu Leu Lys Ser |
| 275 | 280 | 285 |
| Asp Ser Asp Met Leu Pro | Asp Ser Glu Lys Gly | Tyr Ala Pro Ile Ile |
| 290 | 295 | 300 |
| Arg Gly Ser Ala His Ser | Asn Ala Gln Val Val | Val Arg Gln Asn Gly |
| 305 | 310 | 315 |
| Tyr Ile Ile Tyr Gln Asn | Thr Val Ala Pro Gly | Ala Phe Glu Ile Asn |
| 325 | 330 | 335 |
| Asp Leu Tyr Pro Thr Gly | Ser Ser Gly Asp Leu | Gln Val Thr Val Lys |
| 340 | 345 | 350 |
| Glu Thr Asp Gly Ser Glu | Ser His Phe Val Val | Pro Phe Ala Ser Val |
| 355 | 360 | 365 |
| Pro Val Leu Gln Arg Glu | Lys Asn Leu Arg Tyr | Ser Val Thr Ala Gly |
| 370 | 375 | 380 |
| Arg Tyr Arg Ser Tyr Asp | Lys Asp Val Glu Lys | Thr Pro Phe Ala Gln |
| 385 | 390 | 395 |
| Gly Ser Ala Ile Tyr Gly | Leu Pro Phe Gly Phe | Thr Val Tyr Gly Gly |
| 405 | 410 | 415 |
| Val Gln Gln Ser Asn His | Tyr Gln Ser Gln Ala | Ile Gly Ala Gly Lys |
| 420 | 425 | 430 |
| Asn Met Gly Asp Leu Gly | Ala Phe Ser Ile Asp | Val Thr Arg Ala Arg |
| 435 | 440 | 445 |
| Ala Leu Leu Lys Lys Gln | Gln Ser Ser Lys Gly | Gln Ser Trp Arg Ile |
| 450 | 455 | 460 |
| Arg Tyr Ser Lys Asp Phe | Ala Gly Ser Gly Thr | Asn Phe Thr Leu Ala |
| 465 | 470 | 475 |
| Gly Tyr Arg Tyr Asn Ser | Lys Gly Phe Tyr Thr | Leu Asp Asp Thr Met |
| 485 | 490 | 495 |
| Glu Ser Tyr Thr Arg Ser | Asp Asn Trp Ser Ala | Pro Gln Gln Arg Arg |
| 500 | 505 | 510 |
| Ala Arg Thr Glu Ala Thr | Ile Asp Gln Thr Leu | Pro Glu Gly Trp Gly |
| 515 | 520 | 525 |
| Ser Val Thr Leu Ser Met | Val Lys Glu Thr Tyr | Trp Ser Gln Ser Gln |
| 530 | 535 | 540 |
| Asn Met Thr Ser Met Ser | Val Ser Tyr Asn Asn | Ser Trp His Gly Val |
| 545 | 550 | 555 |
| Ser Tyr Ser Leu Ser Tyr | Ser Met Asn Lys Asn | Thr Gln Asp Ser Asp |
| 565 | 570 | 575 |
| Glu Asp Gly Asn Glu Val | Thr Asn Asp Asn Gln | Phe Ser Leu Ser Val |
| 580 | 585 | 590 |
| Ser Val Pro Leu Asp Arg | Trp Met His Asn Thr | Trp Ala Thr Tyr Asn |
| 595 | 600 | 605 |
| Leu Asn Asn Thr Lys Asp | Gly Thr Thr Gln Asn | Ile Gly Leu Asn Gly |
| 610 | 615 | 620 |

Thr Ala Leu Lys Glu Asp Asn Leu Asn Trp Asn Ile Gln Glu Gly Leu
 625 630 635 640
 Ser Ser Thr Gly Ser Gly Asn Ser Thr Ser Ile Asn Ala Asp Tyr Lys
 645 650 655
 Ala Thr Tyr Gly Glu Val Ser Ala Gly Val Ser Gln Asp Lys Tyr Gln
 660 665 670
 Gln Thr Leu Asn Val Gly Leu Gln Gly Gly Val Val Ala His Ala Asn
 675 680 685
 Gly Ile Thr Leu Ser Gln Pro Leu Gly Asp Thr Ile Ala Leu Val Lys
 690 695 700
 Ala Pro Gly Thr His Gly Thr His Ile Thr Asn Gln Thr Gly Val Glu
 705 710 715 720
 Thr Asp Phe Arg Gly Tyr Thr Val Val Pro Phe Val Thr Ala Tyr Arg
 725 730 735
 Arg Asn Thr Ile Ala Leu Asp Thr Glu Thr Leu Pro Asp Asn Ala Asp
 740 745 750
 Val Thr His Ala Ala Gln Ile Val Thr Pro Thr Arg Gly Ala Val Val
 755 760 765
 Arg Ala Ser Phe Asn Thr Arg Val Gly Asn Arg Val Leu Met Thr Leu
 770 775 780
 Thr Gln Lys Gly Lys Pro Leu Pro Phe Gly Ala Thr Val Thr Thr Glu
 785 790 795 800
 Asp Lys Asp Ser Glu Phe Ile Val Gly Asn Asp Gly Gln Thr Tyr Leu
 805 810 815
 Ser Gly Leu Pro Gln Gln Gly His Leu Tyr Val Ser Trp Gly Gln Gly
 820 825 830
 Ala Asn Glu His Cys Val Ala Asp Tyr Ala Leu Thr Asp Glu Lys Glu
 835 840 845
 Gln Thr Ser Ile Ile Asn Ala Ala Gln Cys His
 850 855 860

<210> 7891

<211> 171

<212> PRT

<213> Enterobacter cloacae

<400> 7891

Val Thr Asn Met Lys Lys Thr Ile Ala Phe Leu Thr Met Gly Leu Leu
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 20 25 30
 Tyr Ala Asn Thr Cys Ile Ile Asp Ser Ala Ser Arg Asn Leu Thr Val
 35 40 45
 Asp Leu Gly Gln Thr Val Ser Gly Ser Phe Lys Asp Val Gly Asp Thr
 50 55 60
 Gly Glu Trp Lys Asp Phe Ser Leu Ser Val Ser His Cys Pro Ala Thr
 65 70 75 80
 Leu Ala Leu Ala Thr Ala Phe Phe Tyr Gly Gln Ala Asp Ser Val His
 85 90 95
 Pro Thr Lys Phe Ala Asn Ile Gly Ser Ala Lys Gly Leu Ala Leu Glu
 100 105 110
 Leu Ala Asp Arg Gln Asp Lys Ile Leu Ile Ala Pro Gln Ala Ala Phe
 115 120 125
 Asn Ala Ala Ile Asn Pro Ser Asp His Thr Ala Thr Phe Leu Leu Ser
 130 135 140
 Ala Arg Tyr Tyr Ala Thr Ser Met Pro Val Thr Ala Gly Thr Phe Ser
 145 150 155 160
 Ser Val Ile Gln Val Thr Phe Thr Tyr Gln
 165 170

<210> 7892

<211> 408
 <212> PRT
 <213> Enterobacter cloacae

<400> 7892

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Arg | Pro | Pro | Thr | Thr | Arg | Ser | Gln | Thr | Arg | Pro | Trp | Ser | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Ser | Pro | Ser | Ser | Thr | Thr | Gly | Ile | Arg | Arg | Ile | Leu | Met | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Asn | Ala | Leu | Ser | Trp | Arg | Arg | Val | Arg | Ala | Leu | Cys | Val | Lys | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Arg | Gln | Ile | Val | Arg | Asp | Pro | Ser | Ser | Trp | Leu | Ile | Ala | Val | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Pro | Leu | Leu | Leu | Leu | Phe | Ile | Phe | Gly | Tyr | Gly | Ile | Asn | Leu | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Ser | Lys | Leu | Arg | Val | Gly | Ile | Leu | Leu | Glu | Gln | Gln | Ser | Glu | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ala | Leu | Asp | Phe | Thr | His | Ala | Met | Thr | Gly | Ser | Pro | Tyr | Ile | Asp | Ala |
| | | | 100 | | | | | | 105 | | | | | 110 | |
| Thr | Ile | Ser | Asp | Asn | Arg | Gln | Glu | Leu | Ile | Gln | Lys | Met | Gln | Ala | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Ile | Arg | Gly | Leu | Ile | Val | Ile | Pro | Val | Asp | Phe | Ala | Ala | Asn | Met |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Arg | Ala | Asn | Thr | Asp | Ala | Pro | Ile | Gln | Val | Ile | Thr | Asp | Gly | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Pro | Asn | Thr | Ala | Asn | Phe | Val | Gln | Gly | Tyr | Ala | Glu | Gly | Ile | Trp |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gln | Leu | Trp | Gln | Met | Gln | Arg | Ala | Glu | Asp | Arg | Gly | Glu | Glu | Phe | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Pro | Leu | Ile | Asp | Val | Gln | Thr | Arg | Tyr | Trp | Phe | Asn | Pro | Ala | Ala | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ser | Gln | His | Phe | Ile | Ile | Pro | Gly | Ala | Val | Thr | Ile | Ile | Met | Thr | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Gly | Ala | Ile | Leu | Thr | Ser | Leu | Val | Ile | Ala | Arg | Glu | Trp | Glu | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Thr | Met | Glu | Ala | Leu | Leu | Ser | Thr | Glu | Val | Thr | Arg | Val | Glu | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Leu | Cys | Lys | Leu | Ile | Pro | Tyr | Tyr | Phe | Leu | Gly | Met | Leu | Ala | Met |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Leu | Cys | Met | Leu | Val | Ser | Val | Phe | Ile | Leu | Gly | Val | Pro | Tyr | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Ser | Leu | Val | Val | Leu | Phe | Phe | Ile | Thr | Ser | Leu | Phe | Leu | Leu | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Leu | Gly | Met | Gly | Leu | Leu | Ile | Ser | Thr | Ile | Thr | Arg | Asn | Gln | Phe |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Ala | Ala | Gln | Val | Ala | Leu | Asn | Ala | Ala | Phe | Leu | Pro | Ser | Ile | Met |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Ser | Gly | Phe | Ile | Phe | Gln | Ile | Asp | Ser | Met | Pro | Ala | Val | Ile | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ala | Val | Thr | Tyr | Ile | Ile | Pro | Ala | Arg | Tyr | Phe | Val | Ser | Thr | Leu | Gln |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Leu | Phe | Leu | Ala | Gly | Asn | Ile | Pro | Val | Val | Leu | Ile | Ile | Asn | Thr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Phe | Leu | Met | Ala | Ser | Ala | Val | Met | Phe | Ile | Gly | Leu | Thr | Trp | Met |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Lys | Thr | Lys | Arg | Arg | Leu | Asp | | | | | | | | | |
| | | | | | 405 | | | | | | | | | | |

<210> 7893
 <211> 272
 <212> PRT

<213> Enterobacter cloacae

<400> 7893

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Trp | His | Asp | Phe | Phe | Ile | Val | Pro | Glu | Val | Leu | Ala | Gly | Asp | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Pro | Val | Asp | Ile | Lys | Gly | Asn | Ala | Met | Lys | Ser | Val | Leu | Lys | Val | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Ala | Leu | Thr | Leu | Ala | Phe | Ala | Val | Ser | Ser | Gln | Ala | Ala | Asp |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Lys | Leu | Val | Val | Ala | Thr | Asp | Thr | Ala | Phe | Val | Pro | Phe | Glu | Phe | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Gly | Asp | Lys | Tyr | Val | Gly | Phe | Asp | Val | Asp | Leu | Trp | Ala | Ala | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Lys | Glu | Leu | Lys | Leu | Asp | Tyr | Thr | Leu | Lys | Pro | Met | Asp | Phe | Ser |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Ile | Ile | Pro | Ala | Leu | Gln | Thr | Lys | Asn | Val | Asp | Leu | Ala | Leu | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Ile | Thr | Ile | Thr | Glu | Glu | Arg | Lys | Lys | Ala | Ile | Asp | Phe | Ser | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Tyr | Tyr | Lys | Ser | Gly | Leu | Val | Met | Val | Lys | Ala | Asp | Asn | Asn | |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Val | Lys | Ser | Val | Lys | Asp | Leu | Asp | Gly | Lys | Val | Val | Ala | Val | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Gly | Thr | Gly | Ser | Val | Asp | Tyr | Ala | Lys | Ala | Asn | Ile | Lys | Thr | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Leu | Arg | Gln | Phe | Pro | Asn | Ile | Asp | Asn | Ala | Tyr | Met | Glu | Leu | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Asn | Arg | Ala | Asp | Ala | Val | Leu | His | Asp | Thr | Pro | Asn | Ile | Leu | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Phe | Ile | Lys | Thr | Ala | Gly | Asn | Gly | Lys | Phe | Lys | Ala | Val | Gly | Asp | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Glu | Ala | Gln | Gln | Tyr | Gly | Ile | Ala | Phe | Pro | Lys | Gly | Ser | Asp | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Arg | Asn | Lys | Val | Asn | Gly | Ala | Leu | Lys | Thr | Leu | Lys | Glu | Asn | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Tyr | Asn | Glu | Ile | Tyr | Lys | Lys | Trp | Phe | Gly | Thr | Glu | Pro | Lys | |
| | | | 260 | | | | | 265 | | | | | 270 | | |

<210> 7894

<211> 243

<212> PRT

<213> Enterobacter cloacae

<400> 7894

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | Val | Ala | Leu | Thr | Leu | Thr | Gly | Pro | Thr | Phe | Phe | Val | Phe | His |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Gly | Ile | Gln | Glu | Tyr | Ile | Met | Gln | Phe | Asp | Trp | Ser | Ala | Ile | Trp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Ala | Ile | Pro | Leu | Leu | Leu | Glu | Gly | Ala | Lys | Met | Thr | Leu | Trp | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Val | Leu | Gly | Leu | Val | Gly | Gly | Leu | Ile | Ile | Gly | Leu | Val | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Ala | Arg | Thr | Tyr | Gly | Gly | Trp | Ile | Ala | Asn | His | Ile | Ala | Leu | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Ile | Glu | Val | Ile | Arg | Gly | Thr | Pro | Ile | Val | Val | Gln | Val | Met | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Tyr | Phe | Ala | Leu | Pro | Met | Ala | Phe | Thr | Asp | Leu | Arg | Ile | Asp | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ser | Ala | Ala | Val | Val | Thr | Ile | Met | Ile | Asn | Ser | Gly | Ala | Tyr | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Glu | Ile | Thr | Arg | Gly | Ala | Val | Leu | Ser | Ile | His | Lys | Gly | Phe | Ser |

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| 130 | | 135 | | 140 | | | | | | | | | | | | | | |
| Glu | Ala | Gly | Leu | Ala | Leu | Gly | Leu | Ser | Arg | Arg | Glu | Thr | Ile | Arg | His | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Val | Ile | Leu | Pro | Leu | Ala | Leu | Arg | Arg | Met | Leu | Pro | Pro | Leu | Gly | Asn | | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Gln | Trp | Ile | Ile | Ser | Ile | Lys | Asp | Thr | Ser | Leu | Phe | Ile | Val | Ile | Gly | | | |
| | | | | 180 | | | | 185 | | | | | | 190 | | | | |
| Val | Ala | Glu | Leu | Thr | Arg | Gln | Gly | Gln | Glu | Ile | Ile | Ala | Gly | Asn | Phe | | | |
| | | | | 195 | | | | 200 | | | | | 205 | | | | | |
| Arg | Ala | Leu | Glu | Ile | Trp | Ser | Ala | Val | Ala | Val | Val | Tyr | Leu | Ile | Ile | | | |
| | | | | 210 | | | 215 | | | | | 220 | | | | | | |
| Thr | Leu | Val | Leu | Ser | Phe | Val | Leu | Arg | Arg | Leu | Glu | Arg | Arg | Met | Lys | | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | | |
| Ile | Leu | | | | | | | | | | | | | | | | | |

<210> 7895

<211> 194

<212> PRT

<213> Enterobacter cloacae

<400> 7895

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| Lys | Arg | Pro | Gly | Asn | Val | Phe | Ala | Arg | Asn | Ile | Ser | Gly | Phe | Thr | Met | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Asn | Lys | Val | Ala | Leu | Gly | Leu | Phe | Ile | Ala | Ala | Thr | Val | Gly | Cys | Ser | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Ala | Ser | Ala | Phe | Ala | Ala | Thr | Asn | Gly | Glu | Gly | Gln | Ile | Asn | Phe | Thr | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Gly | Glu | Ile | Ile | Asp | Ser | Ala | Cys | Gln | Val | Val | Asn | Gly | Leu | Ser | Asn | | | |
| | | | 50 | | | 55 | | | | | 60 | | | | | | | |
| Pro | Leu | Asp | Val | Gln | Leu | Gly | Lys | Val | Ser | Lys | Thr | Val | Phe | Thr | Gly | | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Ala | Gly | Ser | Thr | Ser | Thr | Leu | Thr | Lys | Phe | Asp | Ile | Lys | Leu | Thr | Asn | | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Cys | Pro | Glu | Thr | Val | Thr | Ser | Ala | Ala | Ile | Asn | Phe | Gly | Gly | Thr | Pro | | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | | |
| Asp | Ala | Asp | Asn | Asn | Ala | Ala | Leu | Ala | Leu | Thr | Pro | Asp | Thr | Asp | Ala | | | |
| | | | 115 | | | | 120 | | | | | 125 | | | | | | |
| Ala | Thr | Gly | Val | Ala | Ile | Gln | Leu | Val | Asp | Thr | Ser | Gly | Gln | Pro | Val | | | |
| | | | 130 | | | 135 | | | | | 140 | | | | | | | |
| Ser | Leu | Tyr | Thr | Pro | Ser | Lys | Gln | Tyr | Pro | Leu | Ala | Ser | Gly | Thr | Ala | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | |
| Val | Asn | Asp | Leu | Glu | Phe | Gly | Ala | Arg | Tyr | Ile | Gln | Thr | Gln | Ala | Ala | | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | | |
| Val | Thr | Ala | Gly | Pro | Ala | Asn | Ser | Val | Ser | Thr | Phe | Thr | Val | Ile | Tyr | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | |
| Asn | | | | | | | | | | | | | | | | | | |

<210> 7896

<211> 228

<212> PRT

<213> Enterobacter cloacae

<400> 7896

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|
| Glu | Ile | Phe | Met | Arg | His | Gly | Tyr | Leu | Leu | Ser | Ile | Leu | Leu | Leu | Val | | | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | | | |
| Ala | Ala | Ser | Ala | Gln | Ala | Gly | Val | Val | Ile | Asn | Gly | Thr | Arg | Leu | Val | | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Tyr | Gln | Gly | Asp | Lys | Lys | Glu | Ser | Ser | Leu | Gly | Leu | Ser | Asn | Pro | Asp | | | |
| | | | 35 | | | | 40 | | | | | 45 | | | | | | |

Thr Thr Asp Tyr Leu Val Gln Ser Trp Val Asp Ser Gly Gly Lys Asn
 50 55 60
 Gln Ala Lys Ala Pro Phe Leu Ile Thr Pro Pro Leu Phe Arg Leu Asp
 65 70 75 80
 Ala Lys Glu Asp Asn Val Leu Arg Val Val Arg Thr Gly Gly Asn Leu
 85 90 95
 Pro Glu Asp Arg Glu Ser Leu Tyr Trp Leu Asn Ile Lys Ala Ile Pro
 100 105 110
 Ser Ser Lys His Val Glu Gly Val Asn Thr Leu Gln Ile Ala Ile Asn
 115 120 125
 Thr Arg Ile Lys Leu Leu Tyr Arg Pro Ser Ala Val Lys Gly Arg Pro
 130 135 140
 Glu Asp Val Ala Asp Lys Leu Glu Trp His Arg Glu Gly Asn Asp Leu
 145 150 155 160
 Val Val Asn Asn Pro Thr Pro Phe Phe Met Asn Phe Gln Thr Val Thr
 165 170 175
 Leu Asn Gly Gln Lys Val Lys Lys Ala Thr Trp Ala Val Pro Lys Thr
 180 185 190
 Glu Thr His Phe Ala Leu Pro Gly Asn Val Gly Gly Ser Thr Val Ala
 195 200 205
 Tyr Ser Ile Ile Thr Asp Tyr Gly Ser Ile Ser Gln Thr Trp Ser Lys
 210 215 220
 Pro Val His
 225

<210> 7897

<211> 355

<212> PRT

<213> Enterobacter cloacae

<400> 7897

Arg Met Arg Lys Ser Lys Pro Ala Ser Leu Thr Leu Pro Arg Ser Val
 1 5 10 15
 Thr Asp Pro Pro Phe Arg Leu Thr Ile Met Gln Met Ile Lys Gln Cys
 20 25 30
 Phe Phe Leu Leu Val Leu Gly Thr Ala Ala Leu Phe Met Pro His Ala
 35 40 45
 Lys Ala Thr Cys Thr Thr Pro Asp Leu Pro Lys Met Ile Asn Met Ala
 50 55 60
 Ser Ile Ser Val Pro Thr Thr Leu Ala Val Gly Ala Thr Ile Pro Gly
 65 70 75 80
 Thr Glu Gln Ser Val His Val Ala Gly His Cys Asp Gln Ser Ile Asp
 85 90 95
 Ser Gly Leu Glu Ile Val Ser Cys Tyr Tyr Gly Thr Gly Ala Glu Ile
 100 105 110
 Pro Gly Leu Lys Gly Val Tyr Glu Ser Gly Val Pro Gly Val Gly Val
 115 120 125
 Ala Leu Met Asn Asp Gln Gly Gln Arg Ile Ser Gly Ala Gly Gly Val
 130 135 140
 Gln Cys Asp Ser Arg Gly Thr Pro Val Gly Tyr Val Ser Gly Asp Gly
 145 150 155 160
 Thr Gln Ser Phe Asn Phe Asp Val Thr Leu Glu Leu Val Lys Thr Ser
 165 170 175
 Asp Ala Val Thr Ser Gly Thr Leu Val Gln Ser Gln Thr Glu Phe Gly
 180 185 190
 Ile Gly Val Phe Gly His Glu Gly Ile Gly Ser Pro Asn His Ile Ala
 195 200 205
 Tyr Ala Gly Asn Val Ile Leu His Gln Val Thr Cys Ser Val Ser Pro
 210 215 220
 Lys Asn Leu Thr Val Asn Leu Gly Asp Phe Pro Val Ser Asp Phe Met
 225 230 235 240

Ser Val Gly Phe Leu Ser Ser Pro Ala Gln Thr Phe Asn Ile Thr Val
 245 250 255
 Asn Cys Asp Thr Val Gln Pro Glu Leu Lys Ile Thr Ser Ala Asn
 260 265 270
 Ser Tyr Glu Thr Ala Phe Glu Gly Val Ile Lys Leu Thr Lys Gln Thr
 275 280 285
 Gly Met Ala Thr Gly Val Gly Val Arg Met Leu Phe Asp Asp Arg Ile
 290 295 300
 Ala Thr Phe Asp Thr Tyr Val Asn Thr Gln Ser Gln Ala Val Ala Asn
 305 310 315 320
 Glu Thr Leu Glu Ile Pro Phe Gln Val Arg Tyr Glu Gln Ile Ser Asp
 325 330 335
 Val Val Thr Pro Gly Pro Ala Asn Thr Val Ala Thr Ile Thr Leu Ala
 340 345 350
 Tyr Lys
 355

<210> 7898

<211> 345

<212> PRT

<213> Enterobacter cloacae

<400> 7898

Ser Asp Pro Ala Arg Leu Asn Ala Lys Glu Pro Glu Val Met Lys Lys
 1 5 10 15
 Pro Val Ala Ile Ile Leu Val Val Val Val Leu Leu Ala Ala Gly Thr
 20 25 30
 Gly Gly Trp Leu Trp Tyr Gln Ser Gln Gln Asp Arg Gly Leu Thr Leu
 35 40 45
 Tyr Gly Asn Val Asp Ile Arg Thr Val Asn Met Ser Phe Arg Val Gly
 50 55 60
 Gly Arg Leu Ala Ser Leu Asn Val Asp Glu Gly Asp Ala Ile Lys Ala
 65 70 75 80
 Gly Gln Thr Leu Gly Met Leu Asp Lys Ala Pro Phe Glu Asn Ala Leu
 85 90 95
 Met Gln Ala Lys Ala Gly Val Ser Val Ala Gln Ala Gln Tyr Asp Leu
 100 105 110
 Met Leu Ala Gly Tyr Arg Asp Glu Glu Ile Ser Gln Ala Ala Ala
 115 120 125
 Val Lys Gln Ala Lys Ala Ala Tyr Asp Tyr Ala Gln Asn Phe Tyr Asn
 130 135 140
 Arg Gln Gln Gly Leu Trp Lys Ser Arg Thr Ile Ser Ala Asn Asp Leu
 145 150 155 160
 Glu Asn Ala Arg Ser Ser Arg Asp Gln Ala Gln Ala Thr Leu Lys Ser
 165 170 175
 Ala Gln Asp Lys Leu Ser Gln Tyr Arg Thr Gly Asn Arg Ala Gln Asp
 180 185 190
 Ile Ala Gln Ala Lys Ala Ser Leu Glu Gln Ala Gln Ala Gln Leu Ala
 195 200 205
 Gln Ala Glu Leu Asp Leu His Asp Thr Thr Leu Ile Ala Pro Ser Asp
 210 215 220
 Gly Thr Leu Met Thr Arg Ala Val Glu Pro Gly Ser Met Leu Ser Ala
 225 230 235 240
 Gly Ser Thr Val Leu Thr Leu Ser Leu Thr Arg Pro Val Trp Val Arg
 245 250 255
 Ala Tyr Ile Asp Glu Pro Asn Leu Gly Gln Met Gln Pro Gly Arg Glu
 260 265 270
 Leu Leu Leu Tyr Thr Asp Gly Arg Pro Asp Lys Pro Tyr His Gly Lys
 275 280 285
 Val Gly Phe Val Ser Pro Thr Ala Glu Phe Thr Pro Lys Thr Val Glu
 290 295 300

Thr Pro Asp Leu Arg Thr Asp Leu Val Tyr Arg Leu Arg Ile Ile Val
 305 310 315 320
 Thr Asp Ala Asp Asp Ala Leu Arg Gln Gly Met Pro Val Thr Val Thr
 325 330 335
 Leu Asn Asp Gly Glu Arg His Glu
 340 345

<210> 7899

<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 7899

Thr Asp Gln Glu Asn Met Met Ala Ser Gly Trp Ala Asn Asp Asp Ala
 1 5 10 15
 Val Asn Glu Gln Ile Asn Ser Thr Ile Glu Asp Ala Val Ala Arg Ala
 20 25 30
 Arg Gly Glu Ile Pro Arg Gly Glu Ser Leu Thr Glu Cys Glu Glu Cys
 35 40 45
 Gly Asp Pro Ile Pro Glu Ala Arg Arg Lys Ala Ile Pro Gly Val Arg
 50 55 60
 Leu Cys Ile Ala Cys Gln Gln Glu Lys Asp Ser Lys Asn Ala Thr His
 65 70 75 80
 Ser Gly Tyr Asn Arg Arg Gly Ser Lys Asp Ser Gln Leu Arg
 85 90 95

<210> 7900

<211> 88

<212> PRT

<213> Enterobacter cloacae

<400> 7900

Pro Met Lys Thr Ile Lys Tyr Ala Val Ala Ala Val Ala Leu Ser Ala
 1 5 10 15
 Leu Ser Phe Gly Ala Phe Ala Val Glu Pro Val Ser Ser Thr Gln Ala
 20 25 30
 Gln Asp Leu Asn Lys Ile Gly Val Val Ser Ala Glu Gly Ala Thr Thr
 35 40 45
 Leu Asp Gly Leu Glu Ala Lys Leu Ala Glu Lys Ala Ala Ala Gly
 50 55 60
 Ala Ser Gly Tyr Thr Ile Thr Ser Thr Asn Gly Asn Asn Lys Leu Ser
 65 70 75 80
 Gly Thr Ala Val Ile Tyr Lys
 85

<210> 7901

<211> 232

<212> PRT

<213> Enterobacter cloacae

<400> 7901

Leu Ile Phe Asn Ala Ala Met Asn Thr Thr Pro Ala Thr Thr Lys Gly
 1 5 10 15
 Glu Gln Ala Lys Ser Gln Leu Ile Ala Ala Ala Leu Ala Gln Phe Gly
 20 25 30
 Glu Tyr Gly Leu His Ala Thr Thr Arg Asp Ile Ala Ala Gln Ala Gly
 35 40 45
 Gln Asn Ile Ala Ala Ile Thr Tyr Tyr Phe Gly Ser Lys Glu Asp Ser
 50 55 60
 Tyr Leu Ala Cys Ala Gln Trp Ile Ala Asp Phe Ile Gly Thr Ser Phe
 65 70 75 80

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Pro | His | Val | Glu | Glu | Ala | Thr | Ala | Leu | Phe | Ser | Gln | Pro | Glu | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Arg | Ala | Ala | Ile | Arg | Gln | Leu | Ile | Leu | Asn | Ala | Cys | His | Asn | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Arg | Leu | Leu | Thr | His | Asp | Asp | Thr | Leu | Asn | Leu | Ser | Lys | Phe | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Arg | Glu | Gln | Leu | Ser | Pro | Thr | Ala | Ala | Tyr | Gln | Leu | Val | His | Asp |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Gln | Val | Ile | Ala | Pro | Met | His | Ser | His | Leu | Thr | Arg | Leu | Ile | Ala | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Tyr | Thr | Gly | Arg | Asp | Ala | Ser | Asp | Thr | Asp | Thr | Ile | Leu | His | Thr | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Leu | Leu | Gly | Glu | Val | Leu | Ala | Phe | Arg | Leu | Gly | Arg | Glu | Thr | Ile |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Leu | Arg | Thr | Gly | Trp | Thr | Gln | Phe | Asp | Glu | Asp | Lys | Ala | Ala | Gln |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Ile | Ser | Gln | Val | Ile | Thr | Cys | His | Val | Asp | Leu | Ile | Leu | Gln | Gly | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Gln | Arg | Ser | Gln | Lys | Ser | | | | | | | | | |
| 225 | | | | | 230 | | | | | | | | | | |

<210> 7902

<211> 585

<212> PRT

<213> Enterobacter cloacae

<400> 7902

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Thr | Gly | Asn | Asp | Met | Asn | Asp | Ala | Val | Ile | Gln | Leu | Asn | Asn | Leu |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Val | Lys | Arg | Phe | Pro | Gly | Met | Ala | Lys | Pro | Ala | Val | Ala | Pro | Leu | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Cys | Thr | Ile | Gln | Lys | Gly | Tyr | Val | Thr | Gly | Leu | Val | Gly | Pro | Asp | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Gly | Lys | Thr | Thr | Leu | Met | Arg | Met | Leu | Ala | Gly | Leu | Leu | Lys | Pro |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Asp | Glu | Gly | Ser | Ala | Ser | Val | Leu | Gly | Leu | Asn | Pro | Ile | Lys | Asp | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ala | Leu | His | Gly | Ile | Leu | Gly | Tyr | Met | Pro | Gln | Lys | Phe | Gly | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Glu | Asp | Leu | Thr | Val | Met | Glu | Asn | Leu | Asn | Leu | Tyr | Ala | Asp | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Ser | Val | Thr | Gly | Glu | Thr | Arg | Glu | Lys | Thr | Phe | Ala | Arg | Leu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Phe | Thr | Ser | Leu | Gly | Pro | Phe | Thr | Asp | Arg | Leu | Ala | Gly | Lys | Leu |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ser | Gly | Gly | Met | Lys | Gln | Lys | Leu | Gly | Leu | Ala | Cys | Thr | Leu | Val | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Glu | Pro | Lys | Val | Leu | Leu | Leu | Asp | Glu | Pro | Gly | Val | Gly | Val | Asp | Pro |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Ser | Arg | Arg | Glu | Leu | Trp | Gln | Met | Val | His | Glu | Leu | Ala | Gly | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Met | Leu | Ile | Leu | Trp | Ser | Thr | Ser | Tyr | Leu | Asp | Glu | Ala | Glu | Gln |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Cys | Arg | Asp | Val | Leu | Leu | Met | Asn | Glu | Gly | Glu | Leu | Leu | Tyr | Gln | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Pro | Thr | Glu | Leu | Thr | Gln | Thr | Met | Ala | Gly | Arg | Ser | Phe | Leu | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| His | Ser | Ala | Gln | Glu | Ser | Asn | Arg | Thr | Leu | Leu | Gln | Arg | Val | Leu | Lys |
| | | | | 245 | | | | | | 250 | | | | 255 | |
| Leu | Pro | Gln | Val | Ser | Asp | Gly | Met | Ile | Gln | Gly | Arg | Ser | Val | Arg | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |


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Ile Leu Lys Lys Glu Ala Thr Ala Asp Asp Ile Arg Arg Ala Gln Gly
      275      280      285
Met Pro Glu Ile Asp Met Thr Glu Thr Ser Pro Arg Phe Glu Asp Ala
      290      295      300
Phe Ile Asp Leu Leu Gly Gly Ala Gly Thr Ser Glu Ser Pro Leu Gly
305      310      315      320
Ala Ile Leu His Thr Val Glu Gly Thr Pro Gly Glu Thr Val Ile Glu
      325      330      335
Ala Lys Ser Leu Thr Lys Lys Phe Gly Asp Phe Ala Ala Thr Asp Asn
      340      345      350
Val Asn Phe Ala Val Lys Arg Gly Glu Ile Phe Gly Leu Leu Gly Pro
      355      360      365
Asn Gly Ala Gly Lys Ser Thr Thr Phe Lys Met Met Cys Gly Leu Leu
      370      375      380
Val Pro Thr Ser Gly Lys Ala Leu Val Leu Asn Met Asp Leu Lys Val
385      390      395      400
Ser Ser Gly Lys Ala Arg Gln His Leu Gly Tyr Met Ala Gln Lys Phe
      405      410      415
Ser Leu Tyr Gly Asn Leu Thr Val Glu Gln Asn Leu Arg Phe Phe Ser
      420      425      430
Gly Val Tyr Gly Leu Arg Gly Arg Ala Gln Asn Gln Lys Ile Gly Arg
      435      440      445
Met Cys Asp Ala Phe Gly Leu Thr Asp Ile Ala Ser Gln Ala Thr Asp
      450      455      460
Ala Leu Pro Leu Gly Phe Lys Gln Arg Leu Ala Leu Ala Cys Ser Leu
465      470      475      480
Met His Glu Pro Asp Ile Leu Phe Leu Asp Glu Pro Thr Ser Gly Val
      485      490      495
Asp Pro Leu Thr Arg Arg Glu Phe Trp Leu His Ile Asn Ser Met Val
      500      505      510
Glu Lys Gly Val Thr Val Met Val Thr Thr His Phe Met Asp Glu Ala
      515      520      525
Glu Tyr Cys Asp Arg Ile Gly Leu Val Tyr Arg Gly Lys Leu Ile Ala
      530      535      540
His Gly Thr Pro Asp Asp Leu Lys Ala Gln Ala Ala Asp Asp Ser Gln
545      550      555      560
Pro Asp Pro Thr Met Glu Gln Ala Phe Ile Thr Leu Ile His Asp Trp
      565      570      575
Asp Lys Glu Asn Thr His Ala Gln
      580      585

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<210> 7903

<211> 469

<212> PRT

<213> Enterobacter cloacae

<400> 7903

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Trp Ser Gly Arg Phe Gly Val Phe Met Ser Phe Asp Ser Leu Gly Leu
1      5      10      15
Asn Pro Glu Ile Leu Arg Ala Ile Ala Glu Gln Gly Tyr Val Glu Pro
      20      25      30
Thr Pro Ile Gln Gln Gln Ala Ile Pro Ala Val Leu Gln Gly Arg Asp
      35      40      45
Leu Met Ala Ser Ala Gln Thr Gly Thr Gly Lys Thr Ala Gly Phe Thr
      50      55      60
Leu Pro Leu Leu Glu Leu Val Lys Asn Gln Pro His Ala Lys Gly
      65      70      75      80
Arg Arg Pro Val Arg Ala Leu Ile Leu Thr Pro Thr Arg Glu Leu Ala
      85      90      95
Ala Gln Ile Gly Glu Asn Val Arg Glu Tyr Ser Arg Tyr Leu Asn Ile
      100      105      110

```


Arg Ser Leu Val Val Phe Gly Gly Val Ser Ile Asn Pro Gln Met Met
 115 120 125
 Lys Leu Arg Gly Gly Val Asp Val Leu Val Ala Thr Pro Gly Arg Leu
 130 135 140
 Leu Asp Leu Glu His Gln Asn Ala Val Lys Leu Asp Asn Ile Glu Ile
 145 150 155 160
 Leu Val Leu Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe Ile His
 165 170 175
 Asp Ile Arg Arg Val Leu Ala Lys Leu Pro Thr Arg Arg Gln Asn Leu
 180 185 190
 Leu Phe Ser Ala Thr Phe Ser Asp Glu Ile Lys Ala Leu Ala Glu Lys
 195 200 205
 Leu Leu His Asn Pro Leu Glu Val Glu Val Ala Arg Arg Asn Thr Ala
 210 215 220
 Ser Glu Gln Val Thr Gln His Val His Phe Val Asp Lys Lys Arg Lys
 225 230 235 240
 Arg Glu Leu Leu Ser Gln Met Ile Gly Gln Gly Asn Trp Gln Gln Val
 245 250 255
 Leu Val Phe Thr Arg Thr Lys His Gly Ala Asn His Leu Ala Glu Gln
 260 265 270
 Leu Asn Lys Asp Gly Ile Arg Ser Ala Ala Ile His Gly Asn Lys Ser
 275 280 285
 Gln Gly Ala Arg Thr Arg Ala Leu Ala Asp Phe Lys Ser Gly Asp Ile
 290 295 300
 Arg Val Leu Val Ala Thr Asp Ile Ala Ala Arg Gly Leu Asp Ile Glu
 305 310 315 320
 Glu Leu Pro His Val Val Asn Tyr Glu Leu Pro Asn Val Pro Glu Asp
 325 330 335
 Tyr Val His Arg Ile Gly Arg Thr Gly Arg Ala Ala Ala Thr Gly Glu
 340 345 350
 Ala Leu Ser Leu Val Cys Val Asp Glu His Lys Leu Leu Arg Asp Ile
 355 360 365
 Glu Arg Leu Leu Lys Lys Glu Ile Pro Arg Ile Glu Thr Pro Gly Tyr
 370 375 380
 Glu Val Asp Pro Ser Ile Lys Ala Glu Pro Ile Gln Asn Gly Arg Gln
 385 390 395 400
 Gly Gly Gly Arg Gly Gln Gly Gly Gly Arg Gly Gln Gln Pro Arg
 405 410 415
 Arg Ser Glu Gly Gly Ala Pro Lys Ser Ser Gly Lys Pro Pro Arg Arg
 420 425 430
 Asn Asn Asp Ser Lys Pro Ala Gly Gly Asn Pro Trp Arg Ser Gly Glu
 435 440 445
 Gly Lys Pro Ala Gly Glu Gly Gln Arg Arg Arg Arg Pro Arg Lys Pro
 450 455 460
 Ala Asn Pro Gln
 465

<210> 7904

<211> 103

<212> PRT

<213> Enterobacter cloacae

<400> 7904

Thr Ser Pro Ile Arg Ser Gln Tyr Ser Ala Ser Ser Ile Lys Trp Val
 1 5 10 15
 Val Thr Ile Thr Val Thr Pro Phe Ser Thr Met Leu Leu Ile Cys Asn
 20 25 30
 Gln Asn Ser Arg Arg Val Arg Gly Ser Thr Pro Asp Val Gly Ser Ser
 35 40 45
 Arg Asn Arg Ile Ser Gly Ser Cys Ile Asn Glu Gln Ala Ser Ala Ser
 50 55 60

Arg Cys Leu Lys Pro Ser Gly Ser Ala Ser Val Ala Cys Glu Ala Ile
 65 70 75 80
 Ser Val Arg Pro Lys Ala Ser His Met Arg Pro Ile Phe Trp Phe Cys
 85 90 95
 Ala Arg Pro Arg Arg Pro
 100

<210> 7905

<211> 145

<212> PRT

<213> Enterobacter cloacae

<400> 7905

Pro Arg Cys Trp Arg Ala Leu Pro Glu Leu Thr Leu Arg Ser Met Phe
 1 5 10 15
 Ser Thr Ser Ala Leu Pro Asp Val Gly Thr Ser Arg Pro His Ile Ile
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 Leu Lys Val Val Asp Phe Pro Ala Pro Phe Gly Pro Ser Arg Pro Asn
 35 40 45
 Ile Ser Pro Arg Phe Thr Ala Lys Leu Thr Leu Ser Val Ala Ala Lys
 50 55 60
 Ser Pro Asn Phe Leu Val Ser Asp Phe Ala Ser Met Thr Val Ser Pro
 65 70 75 80
 Gly Val Pro Ser Thr Val Cys Arg Met Ala Pro Ser Gly Asp Ser Glu
 85 90 95
 Val Pro Ala Pro Pro Ser Arg Ser Ile Asn Ala Ser Ser Lys Arg Gly
 100 105 110
 Glu Val Ser Val Met Ser Ile Ser Gly Ile Pro Cys Ala Arg Arg Ile
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 Ser Ser Ala Val Ala Ser Phe Leu Arg Ile Thr Arg Thr Glu Arg Pro
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145

<210> 7906

<211> 752

<212> PRT

<213> Enterobacter cloacae

<400> 7906

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 Gly Cys Leu Tyr Ser Ile Ser Gly Phe Pro Met Ala Leu Thr Ala Ala
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 35 40 45
 Pro Asp Phe Ile Pro Arg Ala Pro Gln Arg Gln Met Ile Ala Asp Val
 50 55 60
 Ala Lys Thr Leu Ala Gly Asp Asp Gly Arg His Leu Ala Ile Glu Ala
 65 70 75 80
 Pro Thr Gly Val Gly Lys Thr Leu Ser Tyr Leu Ile Pro Gly Ile Ala
 85 90 95
 Ile Ala Arg Glu Glu Asp Lys Thr Leu Val Val Ser Thr Ala Asn Val
 100 105 110
 Ala Leu Gln Asp Gln Leu Phe Ser Lys Asp Leu Pro Leu Leu Arg Lys
 115 120 125
 Ile Ile Pro Asp Leu Arg Phe Thr Ala Ala Phe Gly Arg Gly Arg Tyr
 130 135 140
 Val Cys Pro Arg Asn Leu Ala Ala Leu Ala Ser Ser Glu Pro Ala Gln
 145 150 155 160
 Gln Asp Leu Leu Ala Phe Leu Asp Asp Glu Leu Thr Pro Asn Asn Lys

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ala | Glu | Gln | Glu | Gln | Cys | Ala | Lys | Leu | Lys | Ala | Asp | Leu | Asp | Ser | Tyr | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Arg | Trp | Asp | Gly | Leu | Arg | Asp | His | Thr | Ser | Gln | Ala | Ile | Gly | Asp | Asp | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Leu | Trp | Arg | Arg | Leu | Ser | Thr | Asp | Lys | Ala | Ser | Cys | Leu | Asn | Arg | Asn | |
| | | 210 | | | | 215 | | | | | 220 | | | | | |
| Cys | His | Tyr | Tyr | Arg | Glu | Cys | Pro | Phe | Phe | Val | Ala | Arg | Arg | Glu | Ile | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Gln | Glu | Ala | Glu | Val | Val | Val | Ala | Asn | His | Ala | Leu | Val | Met | Ala | Ala | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Leu | Glu | Ser | Glu | Ala | Val | Leu | Pro | Glu | Pro | Lys | Asn | Leu | Leu | Leu | Val | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Leu | Asp | Glu | Gly | His | His | Leu | Pro | Asp | Val | Ala | Arg | Asp | Ala | Leu | Glu | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Met | Ser | Ala | Glu | Ile | Thr | Ala | Pro | Trp | Phe | Arg | Leu | Gln | Leu | Asp | Leu | |
| | | 290 | | | | 295 | | | | | 300 | | | | | |
| Phe | Cys | Lys | Leu | Val | Ala | Thr | Cys | Met | Glu | Gln | Phe | Arg | Pro | Lys | Thr | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Thr | Pro | Pro | Leu | Ala | Val | Pro | Glu | Arg | Leu | Ser | Glu | His | Cys | Glu | Glu | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Val | Tyr | Gly | Leu | Ile | Ala | Ser | Leu | Asn | Asn | Ile | Leu | Asn | Leu | Tyr | Leu | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Pro | Ala | Thr | Gln | Glu | Ala | Glu | His | Arg | Phe | Ala | Met | Gly | Glu | Leu | Pro | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Gln | Glu | Val | Met | Glu | Ile | Cys | Gln | Gln | Leu | Ala | Lys | His | Leu | Glu | Lys | |
| | | 370 | | | | 375 | | | | | 380 | | | | | |
| Leu | Arg | Gly | Leu | Ala | Glu | Met | Phe | Leu | Asn | Asp | Leu | Ser | Glu | Lys | Thr | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Gly | Thr | His | Asp | Val | Val | Arg | Leu | His | Arg | Ile | Leu | Leu | Gln | Met | Asn | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Arg | Ala | Leu | Gly | Met | Phe | Glu | Ala | Gln | Ser | Lys | Leu | Trp | Arg | Leu | Ala | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Ser | Met | Ala | Gln | Ala | Ser | Gly | Ala | Pro | Val | Thr | Lys | Trp | Ala | Thr | Arg | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Glu | Val | Arg | Asp | Gly | Gln | Val | His | Leu | Phe | Phe | His | Cys | Val | Gly | Ile | |
| | | 450 | | | | 455 | | | | | 460 | | | | | |
| Arg | Val | Ala | Asp | Gln | Leu | Glu | Lys | Leu | Ile | Trp | Arg | Ser | Val | Pro | His | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Val | Val | Val | Thr | Ser | Ala | Thr | Leu | Arg | Ser | Leu | Asn | Ser | Phe | Ser | Arg | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Leu | Gln | Glu | Met | Ser | Gly | Leu | Lys | Glu | Lys | Ala | Gly | Asp | Arg | Phe | Val | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Ala | Leu | Asp | Ser | Pro | Phe | Asn | His | Cys | Glu | Gln | Gly | Lys | Leu | Val | Ile | |
| | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ser | Leu | Asn | Arg | Tyr | Pro | Phe | Glu | Val | Gln | Ser | Leu | Pro | Ala | Ala |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Ser | Phe | Asn | Leu | Ile | Gln | Gln | Val | Gly | Arg | Leu | Ile | Arg | Ser | His | Gly |
| | | 675 | | | | | | 680 | | | | | 685 | | |
| Cys | Trp | Gly | Glu | Val | Val | Ile | Tyr | Asp | Lys | Arg | Leu | Leu | Thr | Lys | Asn |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Tyr | Gly | Gln | Arg | Leu | Leu | Asn | Ala | Leu | Pro | Ile | Phe | Pro | Ile | Glu | Gln |
| 705 | | | | | 710 | | | | | 715 | | | | 720 | |
| Pro | Glu | Val | Pro | Glu | Val | Lys | Lys | Arg | Pro | Ala | Lys | Pro | Ser | Ala | Gly |
| | | | 725 | | | | | | 730 | | | | | 735 | |
| Arg | Thr | Lys | Ser | Ile | Arg | Ala | Lys | Arg | Arg | Gly | Pro | Thr | Gly | Lys | |
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<210> 7907

<211> 332

<212> PRT

<213> Enterobacter cloacae

<400> 7907

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Asp | Asp | Ala | Val | Arg | Arg | Asn | Val | Val | Asp | Tyr | Arg | Lys | Ile | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Lys | Glu | Val | Gly | Arg | Gly | Lys | Asn | His | Ala | Arg | Asp | Leu | Asp | Gln | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ala | Arg | Ala | Leu | Tyr | Thr | His | Met | Leu | Asn | Gly | Asp | Val | Pro | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Glu | Met | Gly | Gly | Ile | Leu | Ile | Ala | Leu | Arg | Ile | Lys | Gly | Glu | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Ala | Glu | Met | Arg | Gly | Phe | Tyr | Glu | Ala | Met | Gln | Ser | Gln | Thr | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Arg | Leu | Thr | Pro | Pro | Val | Thr | Lys | Pro | Met | Pro | Met | Pro | Ile | Val | Ile |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Thr | Tyr | Asn | Gly | Ala | Arg | Lys | Gln | Ala | Asn | Leu | Thr | Pro | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Ala | Ile | Leu | Leu | Gln | Lys | Leu | Gly | Phe | Pro | Val | Val | Val | His | Gly | Val |
| | | | 115 | | | | | 120 | | | | | 125 | | |
| Ser | Glu | Asp | Pro | Thr | Arg | Val | Leu | Thr | Glu | Thr | Ile | Leu | Glu | Leu | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Ile | Glu | Pro | Thr | Leu | His | Ala | Gly | Gln | Ala | Gln | Ala | Lys | Leu | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Asn | Gln | Pro | Val | Tyr | Ile | Pro | Val | Arg | Ala | Leu | Cys | Pro | Pro | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Glu | Lys | Gln | Leu | Asp | Met | Arg | Trp | Arg | Met | Gly | Val | Arg | Asn | Ser | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| His | Thr | Leu | Ala | Lys | Leu | Ala | Thr | Pro | Phe | Ala | Glu | Asp | Ala | Ala | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Leu | Ser | Ser | Val | Ser | His | Pro | Glu | Tyr | Val | Thr | Arg | Val | Gly | Gln |
| | 210 | | | | | 215 | | | | | | 220 | | | |
| Phe | Phe | Ala | Glu | Ile | Gly | Gly | Arg | Ala | Leu | Leu | Met | His | Gly | Thr | Glu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Glu | Val | Tyr | Ala | Asn | Pro | Gln | Arg | Cys | Pro | Gln | Leu | Met | Leu | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Pro | Ala | Gly | Thr | Arg | Val | Val | Leu | Glu | Arg | Gly | Glu | Glu | Asn | Cys |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Asp | Val | Ile | Leu | Pro | Glu | Ser | Lys | Asp | Pro | Gln | Val | Thr | Ala | His | Trp |
| | | 275 | | | | | 280 | | | | | | 285 | | |
| Ile | Val | Gln | Cys | Leu | Ala | Gly | Lys | Val | Pro | Val | Pro | Gln | Ser | Ile | Lys |
| | 290 | | | | | 295 | | | | | | 300 | | | |
| Leu | Gln | Met | Ala | Cys | Cys | Leu | Leu | Ala | Ala | Gly | Glu | Val | Ala | Ser | Val |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Glu | Ala | Gly | Leu | Gln | Arg | Val | Ala | Gln | Ser | Phe | | | | | |
| | | | | 325 | | | | | 330 | | | | | | |

<210> 7908
 <211> 342
 <212> PRT
 <213> Enterobacter cloacae

<400> 7908

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ile | Ile | Asp | Ile | Gln | Val | Ala | Asp | Phe | Cys | Arg | Phe | Phe | Val | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | Gln | Leu | Phe | Thr | Pro | Ala | Pro | Ser | Gln | Gly | Ile | Leu | Arg | Gly |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Cys | Leu | Lys | Glu | Asn | Ala | Met | Thr | Ser | Gln | Lys | Pro | Gly | Leu | His | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Asn | Arg | His | Arg | Ser | Arg | Tyr | Asp | Met | Lys | Ala | Leu | Cys | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Pro | Glu | Leu | Gln | Asp | Phe | Ile | Val | Gln | Thr | Pro | Ala | Gly | Glu | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Val | Asn | Phe | Ala | Asp | Pro | Leu | Ala | Val | Lys | Thr | Leu | Asn | Lys | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Leu | Leu | Ala | His | Phe | Tyr | Gly | Val | Thr | His | Trp | Asp | Ile | Pro | Asp | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Leu | Cys | Pro | Pro | Val | Pro | Gly | Arg | Ala | Asp | Tyr | Val | His | His | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Asp | Leu | Leu | Ala | Asp | Asp | Asn | Gly | Gly | Val | Val | Pro | Lys | Gln | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Val | Leu | Asp | Ile | Gly | Thr | Gly | Ala | Asn | Leu | Ile | Tyr | Pro | Leu | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Ala | His | Glu | Tyr | Gln | Trp | Arg | Phe | Thr | Gly | Ser | Glu | Ile | Gly | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Glu | Ala | Phe | Ala | Ser | Ala | Gln | Ala | Ile | Asn | Ala | Asn | Pro | Gly | Leu | |
| | | | 180 | | | | | 185 | | | | 190 | | | |
| Ser | Arg | Ala | Val | Arg | Leu | Arg | Arg | Gln | Lys | Asp | Ala | Ala | Ala | Ile | Phe |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Asn | Gly | Ile | Ile | His | Lys | Asn | Glu | Gln | Tyr | Asp | Ala | Thr | Leu | Cys | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Pro | Phe | His | Asp | Ser | Ala | Ala | Ser | Ala | Arg | Ala | Gly | Ser | Glu | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Arg | Arg | Asn | Leu | Gly | Gln | Ala | Glu | Asp | Gly | Ala | Leu | Asn | Phe | Gly |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Gly | Gln | Gln | Gln | Glu | Leu | Trp | Cys | Glu | Gly | Gly | Glu | Val | Ala | Phe | Ile |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Leu | Arg | Met | Ile | Thr | Glu | Ser | Lys | Gly | Phe | Gly | Arg | Gln | Val | Lys | Trp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Thr | Thr | Leu | Val | Ser | Arg | Gly | Asp | Asn | Leu | Pro | Pro | Leu | Tyr | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Leu | Thr | Asp | Val | Gly | Ala | Val | Lys | Val | Val | Lys | Lys | Glu | Met | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gln | Gly | Gln | Lys | Gln | Ser | Arg | Phe | Ile | Ala | Trp | Ser | Phe | Met | Asp | Asp |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Asn | Lys | Arg | Arg | Lys | | | | | | | | | | | |
| | | | 340 | | | | | | | | | | | | |

<210> 7909
 <211> 148
 <212> PRT
 <213> Enterobacter cloacae

<400> 7909

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| Gly | Thr | Tyr | Leu | Ile | Ile | Arg | Arg | Pro | Gln | Ile | Glu | Thr | Pro | Ser | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Thr | Arg | Asn | Thr | Gly | Arg | Glu | Leu | Thr | Thr | Pro | Thr | Ile | Lys | Glu |


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<210> 7910
<211> 245
<212> PRT
<213> Enterobacter cloacae
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<210> 7911
<211> 257
<212> PRT
<213> Enterobacter cloacae
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<400> 7911

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| Cys | Gln | Arg | Gly | Arg | His | Leu | His | Arg | Asp | Leu | Phe | Val | Ile | Phe | Arg | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Pro | Gly | Leu | Leu | Ala | Gly | Ser | Asp | Ser | Ala | Phe | Arg | Arg | Arg | Thr | Met | |
| | | 20 | | | | | | 25 | | | | | 30 | | | |
| Arg | Val | Asn | Thr | Trp | Ile | Cys | Leu | Ala | Gly | Thr | Leu | Cys | Ser | Ser | Ala | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | Tyr | Ala | Gly | Gly | Val | Gly | Leu | Gly | Ala | Thr | Arg | Leu | Val | Tyr | Ala | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gly | Ala | Ala | Thr | Gln | Thr | Met | Met | Gln | Val | Arg | Asn | Thr | His | Pro | Asp | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Thr | Phe | Leu | Ile | Gln | Ser | Trp | Met | Glu | Asp | Glu | Lys | Gly | Ser | Arg | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Asn | Asp | Phe | Val | Ile | Thr | Pro | Pro | Leu | Tyr | Val | Met | Lys | Pro | Ala | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Glu | Ser | Ala | Val | Lys | Ile | Met | Phe | Ser | Gly | Asn | Ala | Leu | Pro | Ser | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Asp | Arg | Glu | Thr | Leu | Tyr | Trp | Met | Thr | Val | Lys | Ala | Ile | Pro | Gln | Gln | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Val | Lys | Asn | Gly | Ser | Gly | Asn | Ser | Leu | Gln | Phe | Ala | Ser | Ala | Asn | Arg | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Ile | Lys | Val | Phe | Tyr | Arg | Pro | Glu | Arg | Leu | Arg | Glu | Gly | Ala | Gly | Glu | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ala | Trp | Lys | Asn | Leu | Ala | Gly | Ala | Tyr | Arg | Ala | Gly | Lys | Val | Thr | Leu | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Thr | Asn | Pro | Thr | Pro | Tyr | Tyr | Leu | Thr | Thr | Ile | Asn | Val | Lys | Ile | Asp | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Gly | Arg | Pro | Val | Ser | Pro | Val | Met | Val | Pro | Pro | Lys | Ala | Ser | Val | Thr | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Leu | Ala | Asp | Thr | Phe | Ser | His | Ala | Ser | Ser | Met | Ser | Tyr | Gln | Thr | Ile | |
| | | | | | 230 | | | | | 235 | | | | | 240 | |
| Asn | Asp | Tyr | Gly | Ala | Trp | Thr | Pro | Val | Thr | Arg | Thr | Ser | Leu | Ser | Gln | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |

<210> 7912

<211> 370

<212> PRT

<213> Enterobacter cloacae

<400> 7912

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| Gln | Arg | Lys | Asn | Asp | Leu | Leu | Cys | Ala | Thr | Gly | Arg | His | Gly | Cys | Ala | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Gly | Gln | Cys | Arg | Arg | Arg | Phe | Gly | Ser | Gly | Asp | Leu | Asp | Asp | Gly | Val | |
| | | 20 | | | | | | 25 | | | | | 30 | | | |
| Ser | Ile | Met | Arg | Leu | Leu | Phe | Leu | Ala | Leu | Phe | Phe | Met | Ser | Ser | Gln | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Ala | Leu | Ala | Leu | Ser | Trp | Thr | Ser | Asp | Ile | Thr | Leu | Ser | Pro | Thr | Pro | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Met | Ser | Trp | Ser | Gly | Pro | Ala | Asp | Ser | Ile | Val | Pro | Gly | Lys | Thr | Ile | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Gly | Ser | Glu | Trp | Ser | Ala | Ser | Ala | Ser | Val | Ser | Glu | Val | Phe | Trp | Cys | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Leu | Val | Phe | Thr | Cys | Ser | Lys | Gly | Thr | Leu | Glu | Pro | Ser | Ser | Ser | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ile | Thr | Ala | Thr | Gly | Ile | Thr | Val | Ile | Leu | Asp | Gly | Ala | Asn | Tyr | Met | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Val | Phe | Glu | Thr | Gly | Val | Pro | Gly | Ile | Gly | Phe | Ile | Leu | Gly | Leu | Lys | |
| | 130 | | | | | 135 | | | | | | 140 | | | | |

Asp Tyr Asn Gly Thr Thr Tyr Val Pro Met Gln Thr Gly Ile Thr Gln
 145 150 155 160
 Ser Tyr Pro Ala Asp Gly Thr Asn Gly Tyr Ala Thr Ala Leu Gly Trp
 165 170 175
 Ser Ala Lys Val Thr Phe Ile Lys Thr Gly Val Pro Leu Lys Ser Gly
 180 185 190
 Val Tyr Gln Thr Pro Thr Ile Asn Ser Ala Ile Leu Thr Ala Tyr Asn
 195 200 205
 Asn Glu Val Lys Thr Ala Gln Val Ile Ile Asn Pro Thr Thr Ile Thr
 210 215 220
 Val Thr Ala Ser Gly Cys Thr Val Gly Thr Lys Ser Ala Asn Val Asp
 225 230 235 240
 Leu Gly Thr Ile Asp Val His Thr Leu Pro Ser Val Gly Ser Thr Ser
 245 250 255
 Pro Ser Gly Glu Phe Asn Val Ser Leu Thr Cys Asp Glu Asn Val Ala
 260 265 270
 Val Asn Ala Val Met Thr Asp Gln Thr Thr Pro Ser Asn Thr Ser Ser
 275 280 285
 Val Val Thr Leu Thr Gly Asp Ser Thr Ala Ser Gly Ile Gly Val Gln
 290 295 300
 Phe Phe Tyr Asn Gly Thr Gly Pro Leu Met Met Gly Pro Asp Ser Ser
 305 310 315 320
 Ala Ala Gly Thr Thr Gly Gln Phe Phe Ile Gln Thr Thr Ser Ala Ala
 325 330 335
 Gln Thr Leu Ser Leu Pro Phe Gln Ala Gln Tyr Ile Arg Thr Gly Asp
 340 345 350
 Leu Val Pro Gly Ser Ala Asn Ala Leu Ala Ser Ile Thr Phe Ser Tyr
 355 360 365
 Gln
 370

<210> 7913

<211> 403

<212> PRT

<213> Enterobacter cloacae

<400> 7913

Pro Thr Glu Ala Gln Ser Cys Thr Pro Phe Arg Arg His Pro His Cys
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 20 25 30
 Lys Arg Ala Gln Arg Ser Asn Pro Met Ile Lys Asn Leu His Ile Gln
 35 40 45
 Asn Tyr Arg Ser Ile Arg Asp Met Ser Leu Glu Leu Glu Gln Leu Asn
 50 55 60
 Ile Val Phe Gly Pro Asn Gly Thr Gly Lys Ser Asn Ile Tyr Lys Ala
 65 70 75 80
 Ile Tyr Leu Met His Ser Ala Ala Gln Gly Gln Phe Ser Gln Ala Leu
 85 90 95
 Ala Asn Glu Gly Gly Ile Leu Lys Val Phe Trp Ala Gly Lys Thr Arg
 100 105 110
 Ser Asp Gln Leu Arg Arg Met Asn Leu Ala Val Glu Thr Glu Thr Tyr
 115 120 125
 Glu Tyr Glu Leu Gln Val Gly Phe Val Glu Lys Leu Pro Tyr Pro Ser
 130 135 140
 Gln Phe Gln Leu Asp Pro Val Ile Lys Glu Glu Ser Ile Trp Leu Ser
 145 150 155 160
 Gly Gln His Arg Arg Pro Ser Ser Gln Leu Met Lys Arg Lys Asn Gln
 165 170 175
 Ala Val Phe Leu Asn Asn Val His His Glu Lys Val Thr His Ser Gly
 180 185 190

Thr Leu Tyr Glu Asn Glu Ser Val Phe Gly Gln Leu Gly Glu Pro His
 195 200 205
 Leu Tyr Pro Glu Val Ser Gln Met Arg Glu Ser Leu Arg Asn Trp Arg
 210 215 220
 Phe Tyr His Glu Phe Ser Val Ser Ser Gly Ser Ala Ile Arg Ala Pro
 225 230 235 240
 Gln Val Gly Phe Arg Ser Pro Val Leu Ala Ser Asp Gly Ala Asn Leu
 245 250 255
 Ala Ala Ala Phe Gln Thr Ile Val Glu Ile Gly Asp Glu Leu Leu Leu
 260 265 270
 Met Arg Ile Leu Asp Gln Ala Phe Pro Gly Cys Val Phe Tyr Ser Asp
 275 280 285
 Asn Thr Gly Gly Arg Phe Arg Met Met Met Gln Arg Glu Gly Leu Ser
 290 295 300
 Arg Pro Leu Glu Pro Ala Glu Phe Ser Asp Gly Thr Leu Arg Phe Leu
 305 310 315 320
 Cys Leu Ala Val Ala Leu Leu Ser Pro Arg Pro Pro Ala Phe Ile Ala
 325 330 335
 Leu Asn Glu Pro Glu Asn Ser Leu His Pro Gln Met Leu Pro Ala Leu
 340 345 350
 Ala Ser Leu Ile Ala Glu Ala Ser Arg Tyr Ser Gln Ile Trp Leu Thr
 355 360 365
 Ser His Ser Pro Glu Leu Ala His Leu Ile Glu Lys His Arg Ser Phe
 370 375 380
 Ser Leu Tyr Gln Leu Leu Met Ala Glu Gly Glu Thr Arg Met Glu Arg
 385 390 395 400
 Leu Gly

<210> 7914

<211> 166

<212> PRT

<213> Enterobacter cloacae

<400> 7914

Lys Glu Ile Glu Met Ala Ile Pro Val Tyr Leu Trp Leu Glu Asp Asp
 1 5 10 15
 Ala Gly Arg Lys Ile Asn Gly Ser Val Asp Ile Lys Asp Arg Glu Gly
 20 25 30
 Ser Ile Glu Val Ile Glu Phe Met His Ser Ile Glu Gln Ser Ile Glu
 35 40 45
 Lys Phe Ser Gly Lys Ile Thr Ser Lys Arg Ile Cys Ser Thr Tyr Ala
 50 55 60
 Phe Met Lys Glu Ile Asp Ser Ser Ser Tyr Leu Tyr Lys Ala Leu
 65 70 75 80
 Ser Thr Gly Gln Thr Leu Thr Arg Ala Glu Phe Ile Phe Tyr Arg Ile
 85 90 95
 Asn Tyr Asn Gly Leu Glu Glu Ala Tyr Phe Lys Thr Thr Leu Glu Asn
 100 105 110
 Ala Arg Val Val Gln Ile Glu Pro Leu Met Phe Asp Ile Lys Leu Pro
 115 120 125
 Gln Asn Glu Arg Tyr Thr His Cys Glu Tyr Val Asp Leu Thr Tyr Glu
 130 135 140
 Lys Ile Thr Trp His Tyr Ile Asp Gly Asn Ile Ile His Ser Asp Thr
 145 150 155 160
 Trp Lys Glu Arg Ala
 165

<210> 7915

<211> 215

<212> PRT

<213> Enterobacter cloacae

<400> 7915

Pro Val Arg Pro Ala Ala Phe Arg Ala Asn Leu Val Ile Lys Lys Pro
 1 5 10 15
 Arg Asn Tyr Glu Met Lys Ala Arg Leu Thr Cys His Ser Leu Leu Ala
 20 25 30
 Leu Ser Ile Ala Ala Leu Leu Pro Ala Gly Ser Ala Leu Ala Ala Thr
 35 40 45
 Thr Ser Gly Gly Thr Val Asn Phe Ser Gly Lys Val Val Thr Ser Ala
 50 55 60
 Cys Ala Ile Ser Ala Gly Ser Ala Asn Ile Asp Val Asp Met Gly Glu
 65 70 75 80
 Val Arg Thr Ala Thr Leu Ala Ala Ala Gly Ser Glu Ala Ser Thr Ala
 85 90 95
 Lys Ala Phe Ser Ile Thr Leu Glu Asp Cys Glu Ile Ala Asp Thr Ser
 100 105 110
 Ala Ser Thr Glu Asn Asn Pro Ile Ala Ala Thr Thr Val Ala Ile Thr
 115 120 125
 Phe Thr Gly Thr Pro Asp Ser Thr Asp Val Asn Ser Leu Ala Ala Gly
 130 135 140
 Val Asn Gly Gly Ala Gly Ser Ala Gln His Val Ala Ile Arg Leu Tyr
 145 150 155 160
 Asp Glu Gln Gly Asn Val Val Arg Leu Gly Glu Pro Ala Ala Ala Ile
 165 170 175
 Pro Leu Arg Ala Gly Ala Asn Thr Leu Asn Phe Ser Ala Lys Tyr Tyr
 180 185 190
 Ser Pro Leu Gly Asn Ala Thr Ala Gly Asp Ala Ser Ala Val Ala Thr
 195 200 205
 Tyr Thr Val Thr Tyr Ser
 210 215

<210> 7916

<211> 231

<212> PRT

<213> Enterobacter cloacae

<400> 7916

Gln Ser Gln Arg Tyr Arg Arg Arg Arg Arg Gln Arg Val Ser Asp Arg
 1 5 10 15
 Pro Val Ser Ala Gly Asn Leu Ala Cys Arg Met Gly Thr Arg Gln Arg
 20 25 30
 Pro Ala Leu His Asp Pro Leu Cys Val Glu Pro Ala Glu Leu Ser Arg
 35 40 45
 Pro His Arg Ala Leu Phe Pro Gly Gly His Met Ser Val Thr Val Arg
 50 55 60
 Phe Leu Pro Leu Ile Leu Leu Met Val Ile Thr Val Pro Ala Arg Gly
 65 70 75 80
 Tyr Asp Val Leu Val Ser Val Thr Gly Asn Val Ile Gly Asn Thr Cys
 85 90 95
 Ile Val Ser Glu Asp Ser Lys Glu Gln Asn Val Pro Leu Gly Thr Leu
 100 105 110
 Gly Val Lys Gln Phe Ser Glu Ala Gly Ala Val Ser Asn Ile Lys Thr
 115 120 125
 Pro Phe Thr Leu Thr Leu Glu Ala Cys Gly Pro Thr Phe Ala Gly Val
 130 135 140
 Lys Ile Arg Phe Ser Gly Thr Pro Asp Asp Glu Asn Pro Gln Leu Leu
 145 150 155 160
 Lys Val Ala Asp Gly Gly Ala Thr Gly Val Ala Val Gln Ile Leu Asp
 165 170 175
 Lys Asp Ser Val Leu Ile Pro Leu Asp Thr Gln Thr Ala Ala Tyr Gly


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<210> 7917
<211> 251
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Asp 1 | Asn | Ser | Phe | Ser 5 | Ser | Asp | Ala | Asp | Met 10 | Ala | Tyr | Ser | Ile | Gly 15 | Glu |
| Phe | Ala | Arg | Leu 20 | Ser | Gly | Ile | Thr | Ala 25 | Thr | Thr | Leu | Arg | Ala 30 | Trp | Gln |
| Arg | Arg | Tyr 35 | Gly | Leu | Leu | Lys | Pro 40 | Glu | Arg | Thr | Asp | Gly 45 | Gly | His | Arg |
| Leu | Tyr 50 | Ser | Asp | Glu | Asp | Val 55 | Gln | Gln | Ala | Leu | Lys 60 | Ile | Leu | Asp | Trp |
| Val 65 | Lys | Lys | Gly | Val | Pro 70 | Ile | Gly | Gln | Val | Lys 75 | Ser | Leu | Leu | Glu | Arg 80 |
| Pro | Ala | Pro | Arg | Arg 85 | Ala | Asn | Asn | Trp | Gln 90 | Thr | Leu | Gln | Gln | Ala 95 | Met |
| Met | Gln | Lys | Leu 100 | Gln | Glu | Gly | Lys | Ile 105 | Glu | Ser | Leu | Arg | Gln 110 | Met | Ile |
| Tyr | Asp | Ala 115 | Gly | Arg | Glu | Tyr | Pro 120 | Arg | Pro | Glu | Leu | Val 125 | Thr | Asn | Val |
| Leu | Arg 130 | Pro | Leu | Arg | Ser | Gln 135 | Ile | Ser | Ala | Asn 140 | Val | Ala | Ala | Ala | Met |
| Thr 145 | Leu | Arg | Glu | Ile 150 | Leu | Asp | Gly | Ile | Leu 155 | Ile | Ala | Tyr | Thr | Ser | Phe 160 |
| Cys | Leu | Glu | Gly 165 | Asp | Lys | Lys | Ala | Pro | Gly 170 | Asp | Asn | Val | Leu | Ile 175 | Ser |
| Gly | Trp | Tyr 180 | Leu | Asn | Asp | Pro | Cys | Glu 185 | Ile | Trp | Leu | Glu | Ala 190 | Leu | Thr |
| Arg | Thr 195 | Gly | Gln | Gly | His | Arg | Ile 200 | Asp | Ile | Leu | Pro | Val 205 | Pro | Pro | Ala |
| Ala | Leu 210 | Ala | Pro | Glu | Ile | Phe 215 | Pro | Asp | Arg | Lys | Trp 220 | Leu | Leu | Val | Thr |
| Ser 225 | Gly | Lys | Leu | Thr 230 | Ala | Ala | Arg | Lys | Lys | Gln 235 | Val | Ala | Gln | Trp | Gln 240 |
| Gln | Gln | Val | Ser 245 | Leu | Glu | Val | Ile | Ile | Leu 250 | | | | | | |

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<210> 7918
<211> 158
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Phe | Arg | Ala | Ala | Ser | Ala | Asn | Val | Phe | Leu | Ser | Pro | Thr | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Gln | Glu | Asn | Thr | Met | Lys | Lys | Thr | Leu | Pro | Leu | Met | Met | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Met | Ala | Phe | Ala | Pro | Ala | Ala | Phe | Ser | Ala | Pro | Ala | Gly | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Val | His | Val | Leu | Asp | Gln | Gln | Thr | Gly | Met | Pro | Pro | Ala | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Val | Thr | Leu | Glu | Lys | Gln | Glu | Gln | Asp | Lys | Trp | Thr | Pro | Ile | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Gly | Lys | Thr | Asp | His | Asp | Gly | Arg | Ile | Lys | Ser | Leu | Tyr | Pro | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Gln | Asp | Met | Ala | Pro | Gly | Val | Tyr | Lys | Val | Thr | Phe | Lys | Thr | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Tyr | Phe | His | Gly | Lys | Lys | Leu | Asp | Ser | Phe | Phe | Pro | Glu | Val | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Leu | Phe | Thr | Val | Thr | Arg | Thr | Asn | Glu | Lys | Leu | His | Ile | Pro | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Leu | Ser | Gln | Tyr | Gly | Tyr | Ser | Thr | Tyr | Lys | Gly | Ser | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | |

<210> 7919

<211> 326

<212> PRT

<213> Enterobacter cloacae

<400> 7919

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Arg | Glu | Val | His | Thr | Met | Thr | Thr | Lys | Pro | Val | Leu | Gly | Ile | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Cys | Leu | Thr | Gly | Ser | Ala | Val | Arg | Phe | Asp | Gly | Gly | His | Lys | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Met | Gly | Phe | Val | Met | Asp | Glu | Leu | Ala | Gln | Trp | Val | Ala | Phe | Arg | Pro |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Val | Cys | Pro | Glu | Met | Ser | Ile | Gly | Leu | Pro | Thr | Pro | Arg | Pro | Ala | Leu |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Arg | Leu | Val | Met | Thr | Thr | Gly | Gly | Glu | Thr | Glu | Met | Arg | Phe | Ser | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ala | Pro | His | Asp | Asp | Val | Thr | Gln | Lys | Met | Ala | Ala | Phe | Thr | Ala | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Tyr | Leu | Pro | Lys | Ile | Gly | Asp | Leu | Ser | Gly | Phe | Ile | Val | Cys | Ala | Lys |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Ser | Pro | Ser | Cys | Gly | Met | Glu | Arg | Val | Arg | Leu | Tyr | Asp | Glu | Asn | Gly |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asn | Arg | Gly | Arg | Lys | Glu | Gly | Val | Gly | Leu | Phe | Thr | Ala | Ala | Leu | Leu |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Glu | Thr | Phe | Pro | Trp | Leu | Pro | Val | Glu | Glu | Asp | Gly | Arg | Leu | His | Asp |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Pro | Val | Leu | Arg | Glu | Asn | Phe | Val | Glu | Arg | Val | Phe | Ala | Leu | His | Glu |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Asn | Val | Met | Arg | Lys | Asn | Gly | Leu | Thr | Arg | Arg | Ala | Leu | Leu | Asp |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Phe | His | Ser | Arg | Tyr | Lys | Leu | Gln | Leu | Leu | Ala | His | His | Gln | Ala | Gly |
| | | 195 | | | | 200 | | | | | | 205 | | | |
| Tyr | Arg | Glu | Ile | Gly | Pro | Phe | Val | Ala | Ser | Leu | His | Glu | Trp | Asp | Asp |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Leu | Asp | Ala | Phe | Phe | Val | Ala | Tyr | Arg | Asp | Lys | Leu | Met | Thr | Ile | Leu |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | |
| Lys | Lys | Pro | Ala | Ser | Arg | Lys | Asn | His | Thr | Asn | Val | Leu | Met | His | Ile |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Gln | Gly | Tyr | Phe | Arg | Asn | Gln | Leu | Asn | Ser | Arg | Gln | Arg | Gly | Glu | Leu |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Arg | Asp | Val | Ile | Leu | His | Tyr | Arg | Asp | Gly | Leu | Leu | Pro | Ile | Leu | Ala |
| | | 275 | | | | 280 | | | | | | 285 | | | |
| Pro | Leu | Thr | Leu | Leu | Lys | His | Tyr | Leu | Ala | Glu | Tyr | Pro | Asp | Arg | Tyr |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Leu | Met | Thr | Gln | Asn | Tyr | Phe | Asp | Pro | Tyr | Pro | Asp | Asp | Leu | Gly | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Arg | Leu | Ala | Val | Thr | | | | | | | | | | | |
| | | | | 325 | | | | | | | | | | | |

<210> 7920
 <211> 84
 <212> PRT
 <213> Enterobacter cloacae

<400> 7920
 Pro Pro Pro Val Pro Ser Ala Pro Val Ala Pro Ile Ser Thr Ser Thr
 1 5 10 15
 Trp Gly Lys Cys Val Pro Pro Arg Trp Leu Pro Gln Ala Val Lys Pro
 20 25 30
 Val Pro Gln Lys Pro Ser Pro Ser Arg Trp Arg Ile Ala Lys Ser Pro
 35 40 45
 Ile Pro Pro Arg Pro Arg Lys Ile Thr Pro Ser Pro Gln Arg Pro Trp
 50 55 60
 Leu Ser Pro Ser Pro Val Arg Arg Thr Val Pro Met Ser Ile Ala Trp
 65 70 75 80
 Pro Arg Glu

<210> 7921
 <211> 866
 <212> PRT
 <213> Enterobacter cloacae

<400> 7921
 Arg Leu Trp Gly Leu Asp Ala Arg His Pro His Val Ile Val Pro Ile
 1 5 10 15
 Ile Lys Thr Val Arg Arg Asp His Met Lys Ile Lys Ile Leu Cys Ala
 20 25 30
 Thr Ala Ile Ala Leu Val Ile Arg Gln Ala Val Ala Ala Glu Ser Glu
 35 40 45
 Leu Gln Phe Asn Pro Ala Phe Leu Asn Gly Glu Arg Ala Asn Ser Ala
 50 55 60
 Asp Leu Ala Trp Val Asn Ala Gly Ser Ala Leu Pro Pro Gly Glu Tyr
 65 70 75 80
 Asn Leu Asn Val Tyr Ile Asn Thr Gln Phe Ala Phe Thr Gly Asn Val
 85 90 95
 Thr Phe Arg Val Ala Glu Ser Thr Ala Gly Glu Ala Leu Pro Cys Leu
 100 105 110
 Thr Pro Ala Gln Phe Ala Ala Leu Gly Ile Asp Ser Arg Gln Ala Lys
 115 120 125
 Gly Gly Glu Leu Pro Pro Ala Gln Arg Cys Ile Phe Leu Thr Gln Ser
 130 135 140
 Phe Ala Asp Thr Arg Phe Asp Phe Asp Gln Arg Thr Leu Thr Leu Asn
 145 150 155 160
 Phe Thr Val Pro Gln Ser Ala Met Arg Ala Leu Pro Arg Gly Tyr Val
 165 170 175
 Ser Pro Glu Ser Trp Glu Ser Gly Ile Pro Ala Ala Trp Leu Asn Tyr
 180 185 190
 Val Val Asn Gly Ala Asn Asn Asp Tyr Arg Gly Glu Thr Arg Thr Arg
 195 200 205
 Glu Gln Gln Leu Phe Val Ser Leu Asn Ser Gly Ala Asn Leu Gly Ala
 210 215 220
 Trp Arg Leu Arg Asp Phe Thr Thr Trp Thr Lys Glu Ser Asn Glu Leu
 225 230 235 240
 Thr His Val Gln Thr Trp Leu Gln Arg Asp Ile Arg Ala Leu Arg Ala
 245 250 255
 Gln Val Tyr Ala Gly Glu Thr Phe Thr Ser Ser Gln Val Phe Asp Ala
 260 265 270
 Val Gly Leu Arg Gly Ile Ala Leu Lys Thr Asp Asp Asn Met Leu Pro

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Ser | Leu | Ser | Gly | Tyr | Ala | Pro | Glu | Val | Arg | Gly | Ile | Ala | Arg | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Ala | Thr | Val | Thr | Val | Arg | Gln | Asn | Gly | Asn | Val | Ile | Tyr | Gln | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ser | Val | Pro | Pro | Gly | Ala | Phe | Val | Leu | Lys | Asp | Leu | Tyr | Pro | Thr | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ser | Gly | Gly | Asp | Leu | Ala | Val | Thr | Ile | Gln | Glu | Ser | Asp | Gly | Ser | Gln |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Thr | Gln | Tyr | Thr | Leu | Pro | Phe | Ala | Ser | Val | Pro | Asn | Leu | Val | Arg | Asn |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Gln | Val | Lys | Tyr | Ala | Leu | Gly | Ala | Gly | Lys | Tyr | Arg | Pro | Ala | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asn | Gln | Ile | Ser | Pro | Ser | Phe | Ala | Gln | Gly | Glu | Leu | Phe | Leu | Gly | Trp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Arg | Tyr | Gly | Leu | Thr | Phe | Tyr | Gly | Gly | Ala | Gln | Phe | Ser | Asp | Arg | Tyr |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Thr | Gly | Leu | Ala | Phe | Gly | Ile | Gly | Gln | Asn | Leu | Gly | Arg | Phe | Gly | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Tyr | Ser | Leu | Asp | Leu | Thr | His | Ala | Arg | Ser | Gln | Leu | Ala | Asp | Asn | Gln |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| His | Tyr | Thr | Gly | Asp | Ser | Val | Arg | Leu | Arg | Tyr | Ser | Lys | Leu | Leu | Asn |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Asp | Ile | Gly | Thr | Arg | Val | Asn | Phe | Phe | Ser | Leu | Arg | Tyr | Ser | Thr | Ala |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gly | Phe | Tyr | Thr | Leu | Ser | Asp | Thr | Thr | Tyr | Lys | Gly | Met | Ala | Gly | Gly |
| | | | 485 | | | | | 490 | | | | | | 495 | |
| Ala | Pro | Glu | Gln | Thr | Val | Glu | Asp | Asp | Gly | Thr | Val | Thr | Thr | His | Tyr |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Asp | Thr | Val | Tyr | Asn | Leu | His | Met | Ser | Arg | Lys | Ala | Lys | Asn | Gln | Leu |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Leu | Leu | Ser | Gln | Pro | Met | Gly | Glu | Tyr | Gly | Ala | Leu | Ser | Leu | Ser | Trp |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Asp | Gln | Gln | Thr | Tyr | Trp | Asn | Thr | Ser | Lys | Thr | Gln | Ser | Leu | Gln | |
| 545 | | | | | 550 | | | | | 555 | | | | 560 | |
| Phe | Ala | Trp | Asn | Ala | Thr | Phe | Arg | Asn | Leu | Ser | Leu | Gly | Ile | Ser | Ala |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Gln | Arg | Ser | Ser | Gly | Leu | Tyr | Asp | Asn | Lys | Lys | Asp | Asn | Ile | Leu | Ala |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Leu | Ser | Leu | Ser | Val | Pro | Leu | Gly | Asn | Pro | Ala | Leu | Ser | Thr | Arg | Leu |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Arg | Phe | Thr | Ala | Thr | His | Ala | Asp | Pro | Ala | Gly | Thr | Thr | Ala | Ser | Thr |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Gly | Val | Ser | Gly | Tyr | Leu | Pro | Gly | Gln | Glu | Asn | Leu | Phe | Tyr | Ser | Val |
| 625 | | | | | 630 | | </ | | | | | | | | |

Ala Leu Val Arg Ala Thr Leu Thr Thr Arg Gln Gly Ala Lys Ala Met
 770 775 780
 Phe Ile Val Arg His Ala Lys Asp Val Leu Pro Phe Gly Thr Leu Val
 785 790 795 800
 Ser Ser Glu Asp Asp Lys Ala Ser Gly Ile Val Gly Asp Gly Gly Ser
 805 810 815
 Val Tyr Leu Thr Gly Leu Ser Ala Gln Gly Thr Leu His Ala Val Trp
 820 825 830
 Gly Arg Asp Ser Ala Gln Arg Cys Thr Ile Arg Tyr Ala Leu Asn Pro
 835 840 845
 Gln Asn Tyr His Ala Arg Thr Gly Leu Tyr Ser Gln Glu Ala Ile Cys
 850 855 860
 Gln
 865

<210> 7922

<211> 261

<212> PRT

<213> Enterobacter cloacae

<400> 7922

Pro Met Asn Ile Thr Gln Ile Arg Asn Ala Thr Gln Leu Ile Thr Tyr
 1 5 10 15
 Ala Gly Lys Arg Phe Leu Ile Asp Pro Met Leu Ala Pro Lys Gly Thr
 20 25 30
 Tyr Pro Gly Phe Pro Gly Thr Ala Arg Ala Asp Ile Arg Asn Pro Met
 35 40 45
 Val Glu Leu Pro Val Asp Val Gln Thr Leu Leu Asp Ala Asp Ala Val
 50 55 60
 Ile Val Thr His Thr His Ala Asp His Trp Asp Gln Tyr Ala Val Glu
 65 70 75 80
 Leu Ile Ala Lys Gly Lys Pro Ile Tyr Val Gln Asn Asp Ser Asp Ala
 85 90 95
 Ala Leu Leu Arg Ser Gln Gly Phe Thr Asn Leu Thr Ile Met Thr Gly
 100 105 110
 Glu Thr Thr Tyr Gly Asp Ile Arg Ile Val Lys Thr His Gly Gly Gln
 115 120 125
 His Gly Thr Asp Arg Ala Tyr Ala Val Pro Glu Leu Ala Glu Phe Leu
 130 135 140
 Gly Glu Ala Cys Gly Val Val Phe Arg His Pro Asp Glu Lys Thr Leu
 145 150 155 160
 Tyr Ile Ala Gly Asp Thr Ile Trp Arg Asp Ala Val Ala Ala Asp Leu
 165 170 175
 Gln Lys His Gln Pro Asp Ile Val Val Leu Asn Ala Gly Tyr Ala His
 180 185 190
 Val Ile Gly Phe Gly Pro Ile Ile Met Gly Glu Glu Asp Leu Leu Asn
 195 200 205
 Val His Phe Leu Leu Pro Gln Ala Lys Ile Val Ala Thr His Met Glu
 210 215 220
 Ala Ile Asn His Cys Leu Leu Thr Arg Arg Ala Leu Arg Glu Tyr Val
 225 230 235 240
 Asp Ala Asn Glu Ile Ser Asp Ala Val Ser Ile Pro Gln Asp Gly Glu
 245 250 255
 Thr Val Ile Phe
 260

<210> 7923

<211> 168

<212> PRT

<213> Enterobacter cloacae

<400> 7923

Lys Arg Arg Phe Gly Tyr Gly Met Gly Asp Ala Ala Ser His Ile Ile
 1 5 10 15
 Phe Asp Asn Val Met Leu Tyr Met Met Phe Phe Tyr Thr Asp Ile Phe
 20 25 30
 Gly Ile Pro Ala Gly Phe Val Gly Thr Met Phe Leu Leu Ala Arg Ala
 35 40 45
 Leu Asp Ala Ile Ser Asp Pro Cys Met Gly Leu Ile Ala Asp Arg Thr
 50 55 60
 Arg Ser Arg Trp Gly Gln Val Pro Ser Met Asp Phe Val Trp Arg Tyr
 65 70 75 80
 Pro Val Arg His Arg Leu Arg Ala Gly Val Tyr His Ala Gly Pro Glu
 85 90 95
 Pro Gln Arg Gln Asn Gly Leu Arg Arg Arg Tyr Leu His Pro Ala Asp
 100 105 110
 Pro Ala Leu Tyr Arg Gly Gln His Pro Val Leu Arg Ala Gly Arg Arg
 115 120 125
 Asp His Gln Arg Pro Asp Ala Ala Tyr Leu Pro Pro Val Leu Ala Leu
 130 135 140
 Cys Ala Gly Asp Gly Gly Arg Tyr Ala Leu Tyr Gly Ala Asp Asp Ala
 145 150 155 160
 Ala Gly Glu Pro Asp Trp Arg
 165

<210> 7924

<211> 419

<212> PRT

<213> Enterobacter cloacae

<400> 7924

His Ile Val Lys Leu Lys Asn Arg Ser Gly Gln Arg Arg Ala Leu Ile
 1 5 10 15
 Pro His His Phe Ser Lys Ser Tyr His Ile Asn Ala Pro Arg Leu Lys
 20 25 30
 Ala Val Leu Thr Leu Phe Ile Ala Phe Phe Leu Cys Leu Leu Val Phe
 35 40 45
 Ala Ile Val Phe Asn Phe Ser Glu Thr Thr Leu Ala Arg Gly Val Leu
 50 55 60
 Ile Pro Ala Gln Gly Asp Val Glu Val Arg Ala Arg Glu Ser Gly Thr
 65 70 75 80
 Leu Val Asp Phe Ala Val Arg Pro Gly Gln Tyr Val Lys Glu Asn Asp
 85 90 95
 Pro Leu Phe Thr Val Ser Gln Asp Tyr Gly Gly Lys Gln Gly Ser Val
 100 105 110
 Val Gln Phe Asp Arg Gln Gln Met Glu Ala Glu Lys Lys Arg Ser Glu
 115 120 125
 Gln Arg Ile Gln Ala Ile Glu Asp Ser Ile Ala Ser Tyr Arg Lys Asn
 130 135 140
 Leu Ala Gln Gln Leu Ala Leu Thr Asp Lys Gln Ile Ala Val Ser Arg
 145 150 155 160
 Asp Lys Val Lys Lys Leu Arg Ala Leu Leu Lys Asn Ser Thr Asp Thr
 165 170 175
 Tyr Glu Ala Trp Lys Ser Val Ser Gly Lys Gly Tyr Val Ser Arg Val
 180 185 190
 Asp Leu Asp Lys Ser His Asn Asp Val Leu Asn Ala Gln Leu Asn Leu
 195 200 205
 Thr Leu Glu Glu Ser Thr Ile Leu Glu Leu Glu Ala Arg Lys Thr Ser
 210 215 220
 Leu Thr Asp Ser Thr Gln Ser Gln Ile Asp Ser Leu Ser Glu Glu Gln
 225 230 235 240
 Leu Tyr Val Lys Asn Arg Ile Ser Glu Ile Asp Arg Asn Leu Ser Ser


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<210> 7925
<211> 335
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Arg 1 | Gly | Lys | Glu | Arg 5 | Gln | Met | Pro | Leu | Val 10 | Asn | Val | Ala | Ile | Val 15 | Ala |
| Val | Asp | Gly | Phe 20 | Ser | Pro | Phe | His | Tyr 25 | Ser | Val | Pro | Cys | Ile 30 | Leu | Phe |
| Gly | Asp | Thr 35 | Val | Ser | Gly | Glu | Lys 40 | Arg | Phe | Asn | Val | Thr 45 | Ile | Cys | Ala |
| Glu | Lys 50 | Pro | Gly | Phe | Leu | Thr 55 | Ser | Lys | Asp | Gly | Phe 60 | Ala | Leu | His | Ala |
| Thr 65 | Gln | Asp | Phe | Ser | Ala 70 | Ile | Ala | Ser | Ala | Glu 75 | Ile | Val | Val | Val | Pro |
| Tyr | Trp | Gln | His | Val 85 | Leu | Glu | Arg | Pro | Pro 90 | Gln | Thr | Leu | Leu | Asp 95 | Ser |
| Leu | Val | Gln | Ala 100 | Arg | Asp | Asn | Gly | Ala 105 | Glu | Ile | Val | Gly | Leu 110 | Cys | Leu |
| Gly | Ser | Phe 115 | Val | Leu | Gly | Tyr 120 | Ala | Gly | Ile | Leu | Ser | Gly 125 | Lys | Arg | Ala |
| Ala | Thr 130 | His | Trp | Glu | Phe | Glu 135 | His | Gln | Phe | Gln | Thr 140 | Leu | Phe | Pro | Asp |
| Val 145 | Arg | Leu | Asp | Ile 150 | Asn | Ala | Leu | Tyr | Val | Asp 155 | Asp | Gly | Asn | Val | Ile 160 |
| Thr | Ser | Ala | Gly 165 | Thr | Ala | Ala | Ala | Leu | Asp 170 | Cys | Cys | Leu | Tyr 175 | Ile | Ile |
| Arg | Gln | Arg | Phe 180 | Gly | Ser | Val | Val 185 | Ala | Asn | Gln | Ile | Ala 190 | Arg | Arg | Met |
| Ile | Val 195 | Pro | Pro | His | Arg | Glu | Gly 200 | Gly | Gln | Ala | Gln 205 | Phe | Ile | Ala | Gln |
| Pro | Val 210 | Pro | Lys | Asp | Thr | Arg 215 | Asp | Gly | Arg | Ile | Asn 220 | Cys | Leu | Ile | Asp |
| Tyr 225 | Leu | Gln | Gln | His 230 | Ile | Ser | Glu | Pro | His 235 | Asn | Leu | Asp | Ser | Leu | Ala |
| Asp | Val | Val | Ser | Met | Ser | Arg | Arg | Thr | Leu | Thr | Arg | His | Phe | Ile | Lys |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | 255 | | | | |
| Ala | Thr | Gly | Met | Ser | Val | Ala | Asp | Trp | Leu | Thr | Ala | Glu | Arg | Leu | Arg | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Arg | Ser | Gln | Ile | Leu | Leu | Glu | Ser | Gly | Ser | Leu | Pro | Ile | Glu | Ser | Val | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Ala | Glu | Gln | Val | Gly | Phe | Leu | Ser | Ala | Val | Thr | Tyr | Arg | Gln | Gln | Phe | | |
| | 290 | | | | | 295 | | | | 300 | | | | | | | |
| Lys | Ala | Arg | Phe | Gly | Val | Ser | Pro | Ala | Glu | Trp | Arg | Lys | Thr | Phe | Arg | | |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | | | |
| Val | Lys | Pro | Tyr | Ala | Lys | Asn | Asn | Ala | Gly | Ala | Met | Glu | | | | | |
| | | | | 325 | | | | 330 | | | | | 335 | | | | |

<210> 7926

<211> 285

<212> PRT

<213> Enterobacter cloacae

<400> 7926

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Met | Ser | Ser | His | Thr | Cys | Gly | Asp | Pro | Gly | Ser | Thr | Ser | Val | Asn | Arg | | |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | | | |
| Arg | Ile | His | Thr | Ala | Pro | Met | His | Lys | His | Tyr | Ile | Ile | Asn | Asn | Ile | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Val | Glu | Phe | His | Pro | Ala | Ala | Ser | Thr | Leu | Arg | Asp | Ile | Asn | Asn | Pro | | |
| | | 35 | | | | | 40 | | | | 45 | | | | | | |
| Asp | Arg | Val | Val | Val | Leu | Asn | Ser | Pro | Ala | Gly | Arg | Cys | Leu | Leu | Leu | | |
| | 50 | | | | | 55 | | | | 60 | | | | | | | |
| Leu | Ile | Asp | Arg | Ala | Gly | Ser | Ile | Val | Thr | Gln | Gln | Glu | Phe | Leu | Asp | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | |
| Ile | Val | Trp | Gln | Ser | His | Gly | Met | Leu | Val | Ser | Ser | Asn | Thr | Tyr | Tyr | | |
| | | | 85 | | | | | 90 | | | | | 95 | | | | |
| Gln | Asn | Ile | Ser | Ile | Leu | Arg | Lys | Gly | Leu | Lys | Lys | Ile | Gly | Phe | Glu | | |
| | | 100 | | | | | | 105 | | | | | 110 | | | | |
| Thr | Asp | Pro | Ile | Val | Thr | Ile | Pro | Arg | Ile | Gly | Leu | Thr | Leu | Ala | Ser | | |
| | 115 | | | | | | 120 | | | | | 125 | | | | | |
| Asp | Thr | Gln | Ile | Thr | Val | Arg | Glu | Ser | Ser | Pro | Val | Ala | Pro | Gln | Pro | | |
| | 130 | | | | | 135 | | | | 140 | | | | | | | |
| Ala | Glu | Glu | Gln | Cys | Val | Glu | Ala | Pro | Ala | Ile | Glu | Glu | Val | Ser | Ala | | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 | | |
| Ser | Ser | Ala | Pro | Ala | Thr | Pro | Val | Ala | Arg | Lys | Pro | Thr | Arg | Trp | Leu | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Ala | Val | Val | Met | Gly | Leu | Leu | Ile | Val | Leu | Ala | Gly | Ala | Gly | Val | Thr | | |
| | | 180 | | | | | | 185 | | | | | 190 | | | | |
| Gly | Tyr | Met | Asn | Ala | Thr | Glu | Asn | Arg | Phe | Val | Glu | Asp | Tyr | Arg | Phe | | |
| | 195 | | | | | | 200 | | | | | 205 | | | | | |
| Ala | Ala | Ser | Val | Gly | Ala | Cys | Arg | Val | Tyr | Leu | Ala | Asn | Asp | Ile | Gln | | |
| | 210 | | | | | 215 | | | | | | 220 | | | | | |
| Thr | His | Ala | Glu | Arg | Ala | Ser | Ala | Leu | Thr | Tyr | Val | Glu | Gln | Phe | Lys | | |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 | | |
| Ala | Glu | Cys | Ala | Gln | Tyr | Pro | Trp | Val | Tyr | Ile | Ser | Trp | Tyr | Ala | Leu | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Leu | Pro | Arg | Ala | Ser | Val | Ile | Arg | Cys | Asp | Arg | Pro | Met | Lys | Glu | Pro | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Asn | Arg | Cys | Ile | Ser | Asp | Tyr | Phe | Leu | Lys | Asp | Ser | | | | | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |

<210> 7927

<211> 330

<212> PRT

<213> Enterobacter cloacae

<400> 7927

Met Lys Ser Val Phe Asp Ser Ser Asp Gly Gly Lys Ser Val Pro Glu
 1 5 10 15
 Lys Cys Leu His Ile Gly Leu Ile Leu Trp Pro Arg Tyr Ser Leu Leu
 20 25 30
 Ala Val Ser Gly Leu Leu Glu Ala Leu Arg Tyr Ala Ala Lys Ala Gln
 35 40 45
 Asp Lys Leu Ala Phe Lys Ile Ser Leu Ile Ser Glu Phe Pro Asp Ile
 50 55 60
 Pro Ile Ile Ser Asn Ala Gly Ile Ile Met Arg Pro Asp Ser Thr His
 65 70 75 80
 Ala Pro Pro Asp Ser Phe Asn Tyr Leu Ala Val Ile Gly Gly Glu Leu
 85 90 95
 Gln Tyr Leu Asp Leu Gly Tyr Gln Gly Asp Lys Ala Tyr Leu Ala His
 100 105 110
 Ala His His Ala Gly Val Pro Leu Ile Gly Ile Gly Thr Gly Ser Phe
 115 120 125
 Val Leu Ala Gln Glu Gly Leu Leu Asn Glu Arg Arg Ala Ser Ile His
 130 135 140
 Pro Phe His Leu Asp Ala Phe Arg Gln Ala Phe Pro Leu Val Tyr Ala
 145 150 155 160
 Glu Gln Gly Tyr Asp Phe Ile Asp Asp Gly Asp Val Leu Thr Cys Pro
 165 170 175
 Gly Gly Ile Ser Thr Leu Thr Leu Ala Thr Glu Leu Ile Arg Ala His
 180 185 190
 Ala Gly Asp Asp Ile Ala Ser Thr Thr Cys Gln Arg Leu Ser Leu Val
 195 200 205
 Pro His Glu Ile Ala Thr Pro Arg Pro Ala Asn Leu Ala Leu Ile Pro
 210 215 220
 Asp Ser Arg Leu Arg Arg Ala Val Met Leu Ile Glu Gln Phe Leu Thr
 225 230 235 240
 Arg Pro Leu Thr Thr Ala Gly Leu Ala Arg Glu Val Ala Leu Ser Glu
 245 250 255
 Arg Gln Leu Asn Arg Leu Phe His Ala Glu Phe Gly Lys Thr Ala Arg
 260 265 270
 Glu Phe Ile Arg Ser Ala Arg Leu Arg Tyr Ala Cys Trp Leu Leu Lys
 275 280 285
 Asn Ser Gln Gln Ser Val Thr Asp Ile Ala Gln Arg Met Gly Phe Ser
 290 295 300
 Asp Cys Ala His Phe Ile Arg His Phe Gln Thr Glu Tyr Gly Cys Thr
 305 310 315 320
 Pro Gly Val Trp Arg Thr Ser Gln Ser
 325 330

<210> 7928

<211> 164

<212> PRT

<213> Enterobacter cloacae

<400> 7928

Ile Ser Leu His Cys Cys Pro Glu Thr Leu Leu Asn Arg Asn Ile Thr
 1 5 10 15
 Met Lys Ile Glu Ala Ala His Pro Ser Gln Phe Glu Arg Leu Val Ala
 20 25 30
 Val Trp Glu Ser Ser Val Arg Ala Thr His Arg Phe Leu Gln Glu Ser
 35 40 45
 Asp Ile Ala Ala Leu Arg Pro Leu Leu Leu Asn Ala Tyr Leu Pro Asn
 50 55 60
 Leu Arg Val Val Ile Ala Arg Asp Asp Val Gly Ile Ile His Gly Phe
 65 70 75 80
 Leu Gly Val Asp Lys Asn Arg Ile Glu Met Leu Phe Val Asp Asp Ala
 85 90 95

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Arg | Gly | Lys | Gly | Ile | Gly | Lys | Met | Leu | Leu | Gln | Tyr | Ala | Ile | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Phe | Gly | Val | Asn | Glu | Val | Asp | Val | Asn | Glu | Gln | Asn | Pro | Gln | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Ala | Phe | Tyr | Arg | His | Met | Gly | Phe | Glu | Gln | Val | Gly | Arg | Ser | Glu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Asp | Gly | Gln | Gly | Asn | Pro | Phe | Pro | Leu | Leu | His | Met | Arg | Leu | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Gln | Ala | | | | | | | | | | | | | |

<210> 7929

<211> 387

<212> PRT

<213> Enterobacter cloacae

<400> 7929

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Pro | Thr | Ala | Pro | Ala | Ala | Ala | Gly | Gly | Lys | Phe | Arg | Pro | Trp | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Phe | Gly | Ala | Ile | Pro | Phe | Gly | Ile | Val | Cys | Val | Leu | Ala | Tyr | Thr |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Thr | Pro | Asp | Leu | Ser | Leu | Asn | Gly | Lys | Met | Val | Tyr | Ala | Ala | Val | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Thr | Leu | Leu | Thr | Leu | Leu | Tyr | Thr | Val | Val | Asn | Ile | Pro | Tyr | Cys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Leu | Gly | Gly | Val | Ile | Thr | Asn | Asp | Pro | Thr | Gln | Arg | Ile | Ser | Leu |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Gln | Ser | Trp | Arg | Phe | Val | Leu | Ala | Thr | Ala | Gly | Gly | Met | Leu | Ser | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Val | Leu | Met | Met | Pro | Leu | Val | Asn | Leu | Ile | Gly | Gly | Asp | Asp | Lys | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Gly | Phe | Gln | Gly | Gly | Ile | Ala | Val | Leu | Ser | Val | Val | Ala | Phe | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Leu | Ala | Phe | Cys | Phe | Phe | Thr | Thr | Lys | Glu | Arg | Ile | Gln | Val | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Ser | Thr | Thr | Ser | Met | Arg | Glu | Asp | Met | Arg | Asp | Ile | Trp | Gln | Asn |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Asp | Gln | Trp | Arg | Ile | Val | Gly | Val | Leu | Thr | Ile | Leu | Asn | Ile | Leu | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Cys | Val | Arg | Gly | Gly | Ala | Met | Met | Tyr | Tyr | Cys | Thr | Trp | Ile | Met |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Ser | Pro | Glu | Val | Phe | Val | Ala | Phe | Leu | Thr | Thr | Tyr | Cys | Val | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asn | Leu | Ile | Gly | Ser | Ala | Leu | Ala | Lys | Pro | Leu | Thr | Asp | Trp | Lys | Cys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Val | Ser | Ile | Phe | Trp | Trp | Thr | Asn | Ala | Ala | Leu | Ala | Val | Val | Ser |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Ala | Met | Phe | Phe | Val | Pro | Met | His | Ala | Thr | Val | Leu | Met | Phe | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Phe | Ile | Phe | Arg | Tyr | Arg | Arg | Ala | Ala | Pro | Ala | Gly | Asp | Ala | Asp | Ser |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Val | Gly | Asn | Asp | Val | Arg | Tyr | Arg | Arg | Ile | Arg | Arg | Met | Asp | Gln | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gln | Thr | Pro | Asp | Arg | His | Gln | Leu | Cys | Gly | His | Ala | Val | Arg | Ala | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Arg | Pro | Gly | Ala | Gly | Arg | Gly | Asp | Asp | Arg | Leu | Asp | Ala | Gly | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Arg | Arg | Leu | Arg | Arg | Gly | Gly | Gln | Asn | Pro | Glu | Gln | Arg | Asp | His | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Tyr | His | Tyr | Arg | Ser | Val | Tyr | Ala | Gly | Ala | Ser | Asp | Leu | Leu | Arg | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |

Glu Arg His His Arg Gln Thr Leu Leu His Ala Glu Asn Pro Phe Pro
 355 360 365
 Asp Gln Asn Pro Ala Arg Ala Gly Ala Gly Cys Ala Pro Gln Ser Ala
 370 375 380
 Gly Val
 385

<210> 7930

<211> 400

<212> PRT

<213> Enterobacter cloacae

<400> 7930

Tyr Val Tyr Leu Arg Pro Leu Val Lys Thr Leu Leu Thr Met Leu Leu
 1 5 10 15
 Met Gly Val Phe Phe Leu Ile Arg Phe Ser Leu Ile Gly Pro Tyr Gln
 20 25 30
 Arg Ala Val Asp Asp Ser Ile Glu Arg Thr Ala Gln Tyr Glu Ser Leu
 35 40 45
 Leu Val Glu Thr Gln Lys Gly Ile Ile Thr Leu Lys Ala Asn Asn Met
 50 55 60
 Glu Gln Ala Arg Asp Ala Val Met Asp Lys Ser Gln Arg Glu His Ile
 65 70 75 80
 Ala Gly Leu Met Arg Lys Glu Arg Leu Leu Ala Arg Phe Asp Val Ala
 85 90 95
 Ser Leu Leu Val Ile Asn Ala Glu Gln Leu Leu Val Val Cys Phe Gly
 100 105 110
 Ala Trp Leu Ile Leu Glu Gly Gln Met Ser Ile Gly Met Leu Tyr Ala
 115 120 125
 Tyr Ile Ser Tyr Lys Arg Tyr Phe Ser Asp Ala Met Val Gln Val Ala
 130 135 140
 Gln Lys Leu Leu Asp Lys Asn Ala Leu Lys Gly Pro Leu Asp Arg Val
 145 150 155 160
 Gly Asp Leu Leu Phe Ala Pro Ser Glu Thr Ser Gln Phe Gly Lys Arg
 165 170 175
 Ile Val Thr Ser Pro Val Cys Leu Gln Phe Glu Asp Val Ser Phe Ala
 180 185 190
 Tyr Pro Gly Arg Glu Ala Thr Leu Gln His Ile Asn Met Thr Leu Lys
 195 200 205
 Gln Gly Glu Glu Ala Val Ile Val Gly Gln Ser Gly Ser Gly Lys Thr
 210 215 220
 Thr Leu Leu Arg Leu Ile Ser Gly Met Leu Leu Ala Ser Ser Gly Thr
 225 230 235 240
 Leu Arg Ile Asn Lys Ile Pro Ile Glu Glu Cys Asp Leu Ser Ser Leu
 245 250 255
 Arg Gln His Ile Arg Ile Val His Ala Asp Asp Ile Leu Phe Thr Gly
 260 265 270
 Ser Ile Leu Asp Asn Ile Ala Cys Phe Asp Ser Ala Pro Asp Lys Glu
 275 280 285
 Gln Val Ile Ala Ala Cys Arg Leu Ala Glu Val Asp His Val Val Ala
 290 295 300
 Arg Leu Pro His Gly Tyr Glu Thr Glu Met Leu Pro Gly Asn Thr Phe
 305 310 315 320
 Phe Ser Ala Gly Glu Met Gln Arg Leu Val Leu Ala Arg Ala Leu Tyr
 325 330 335
 Ser Gln Pro Lys Leu Leu Leu Cys Asp Glu Val Thr Ala Asn Leu Asp
 340 345 350
 Lys Thr Thr Ala Gln Lys Val Leu Ala Asn Leu Arg Ser Leu Gly Ile
 355 360 365
 Gly Leu Val Phe Val Thr His Ser Pro Asp Val Val Gly Cys Gln Gly
 370 375 380

Arg Leu Tyr Thr Met Glu Asn Gly Thr Leu Arg Glu Ser Glu Gln
 385 390 395 400

<210> 7931

<211> 180

<212> PRT

<213> Enterobacter cloacae

<400> 7931

Met Lys Gly Val Leu Met Arg Leu Trp Pro Val Val Thr Gly Val Ala
 1 5 10 15
 Ile Ala Leu Thr Leu Val Ala Cys Lys Ser Pro Thr Pro Pro Lys Gly
 20 25 30
 Val Gln Pro Ile Thr Gly Phe Asp Ala Ser Arg Tyr Leu Gly Lys Trp
 35 40 45
 Tyr Glu Val Ala Arg Leu Glu Asn Arg Phe Glu Arg Gly Leu Glu Gln
 50 55 60
 Val Thr Ala Thr Tyr Gly Lys Arg Ser Asp Gly Gly Ile Ser Val Leu
 65 70 75 80
 Asn Arg Gly Tyr Asp Pro Val Lys Asn Lys Trp Asn Glu Ser Glu Gly
 85 90 95
 Lys Ala Tyr Phe Thr Gly Glu Pro Thr Thr Ala Ala Leu Lys Val Ser
 100 105 110
 Phe Phe Gly Pro Phe Tyr Gly Gly Tyr Asn Val Ile Lys Leu Asp Asp
 115 120 125
 Lys Tyr Gln Tyr Ala Leu Val Ser Gly Pro Asn Arg Asp Tyr Leu Trp
 130 135 140
 Ile Leu Ser Arg Thr Pro Thr Ile Pro Asp Ala Val Lys Gln Asp Tyr
 145 150 155 160
 Leu Asn Thr Ala Arg Gly Leu Gly Phe Arg Val Asp Gln Leu Val Trp
 165 170 175
 Val Lys His
 180

<210> 7932

<211> 164

<212> PRT

<213> Enterobacter cloacae

<400> 7932

Arg Ile Ala Ser Met Thr Arg Phe Arg Gln Met Leu Tyr Ile Ile Val
 1 5 10 15
 Thr Gly Leu Val Met Ala Gly Val Leu Thr Gly Tyr Tyr Leu Trp His
 20 25 30
 Arg Thr Tyr Val Gln Pro Phe Ser Cys Gln Ala Asn Leu Val Gln His
 35 40 45
 His Pro Asp Glu Thr Leu Thr Val Trp Leu Asn Tyr Thr Phe Asp Gly
 50 55 60
 Lys Phe Gly Thr Leu Ser Met Asn Gly Arg Ala Lys Ser Asp Pro Gly
 65 70 75 80
 Lys Thr Ile Asp Arg Lys Ile Ser Phe Arg Val Glu Arg Gln Asp His
 85 90 95
 Leu Tyr Leu Leu Thr Ser Glu Lys Asn Met Thr Phe Pro Asp Asp Asn
 100 105 110
 Val Asp Asp Ser Trp Leu Glu Lys Tyr Glu Pro Gln Phe Val Tyr
 115 120 125
 Pro Gly Lys Ser Ile Tyr Met Arg Ile Asn Glu Gln His Asn Gly Asn
 130 135 140
 Tyr Ile Phe Thr Leu Gly Thr Leu Pro Thr Tyr Val Cys Arg Gly Ser
 145 150 155 160
 Lys Lys Glu

<210> 7933
 <211> 145
 <212> PRT
 <213> Enterobacter cloacae

<400> 7933

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Ser | Ala | Ser | Ser | Phe | Val | Ile | Gly | Val | Leu | His | Gln | Leu | Val | Thr |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Pro | Ile | Gln | Trp | Val | Met | Met | Ser | Asp | Thr | Val | Glu | Tyr | Gly | Glu | Trp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Thr | Asn | Gly | Lys | Arg | Leu | Thr | Gly | Ile | Ser | Phe | Ala | Gly | Thr | Leu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Leu | Lys | Leu | Gly | Leu | Ala | Leu | Gly | Gly | Ala | Met | Ile | Gly | Trp | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Ala | Gly | Gly | Gly | Tyr | Asp | Ala | Ala | Ala | Lys | Thr | Gln | Asn | Ser | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ile | Ser | Ile | Ile | Ile | Gly | Leu | Phe | Thr | Leu | Ala | Pro | Ala | Ile | Cys |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Tyr | Val | Leu | Ser | Ala | Ile | Ile | Ala | Lys | Arg | Tyr | Tyr | Thr | Leu | Lys | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Phe | Leu | Thr | Lys | Ile | Leu | Arg | Glu | Leu | Ala | Gln | Gly | Ala | Arg | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Gln | Gln | Glu | Phe | Glu | Asn | Leu | Pro | Val | Ser | Lys | Glu | Leu | Gln | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |

145

<210> 7934
 <211> 793
 <212> PRT
 <213> Enterobacter cloacae

<400> 7934

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asp | Glu | Ser | Met | Lys | Ile | Ser | Asp | Gly | Asn | Trp | Leu | Ile | Gln | Pro |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Gly | Leu | Asn | Val | Thr | Tyr | Pro | Val | Gln | Val | Phe | Asp | Val | Glu | Gln | Gln |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Gly | Asn | Asp | Leu | Val | Val | Tyr | Val | Ala | Pro | Arg | Asp | Val | Arg | Glu | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Trp | Gln | Leu | Asp | Thr | Leu | Met | Phe | Thr | Val | Arg | Leu | Phe | Ala | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Glu | Gly | Ile | Val | Gly | Val | Arg | Ile | Glu | His | Phe | Gln | Gly | Ala | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Lys | Gly | Pro | His | Tyr | Pro | Leu | Asn | Val | Leu | Lys | Asp | Val | Lys | Val |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Ile | Glu | Asn | Ala | Glu | Phe | Ala | Glu | Leu | Lys | Ser | Gly | Ser | Val | |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Ser | Val | Arg | Val | Thr | Lys | Gly | Glu | Phe | Trp | Ala | Leu | Asp | Phe | Leu | Arg |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Gly | Gln | Arg | Ile | Thr | Gly | Ser | Gln | Leu | Lys | Asn | Asn | Gly | Tyr | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Asp | Asn | Asn | Thr | Asp | Arg | Asn | Tyr | Val | Phe | Glu | Arg | Leu | Asp | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Val | Gly | Glu | Thr | Val | Tyr | Gly | Leu | Gly | Glu | Arg | Phe | Thr | Ala | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Val | Arg | Asn | Gly | Gln | Thr | Val | Glu | Thr | Trp | Asn | Arg | Asp | Gly | Gly | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ser | Thr | Glu | Gln | Ser | Tyr | Lys | Asn | Ile | Pro | Phe | Tyr | Leu | Thr | Asn | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Tyr | Gly | Val | Leu | Val | Asn | His | Pro | Glu | Asn | Val | Ser | Phe | Glu | Val |
| 210 | | | | | | 215 | | | | | 220 | | | | |
| Gly | Ser | Glu | Lys | Val | Ser | Lys | Val | Gln | Phe | Ser | Val | Glu | Gly | Glu | Tyr |
| 225 | | | | | | 230 | | | | | 235 | | | | 240 |
| Leu | Glu | Tyr | Phe | Val | Ile | Asp | Gly | Pro | Thr | Pro | Lys | Glu | Val | Leu | Asn |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Tyr | Thr | Arg | Phe | Thr | Gly | Arg | Pro | Ala | Leu | Pro | Pro | Ala | Trp | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Gly | Leu | Trp | Leu | Thr | Thr | Ser | Phe | Thr | Thr | Asn | Tyr | Asp | Glu | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Val | Asn | Ser | Phe | Ile | Asp | Gly | Met | Ala | Glu | Arg | Asp | Leu | Pro | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Val | Phe | His | Phe | Asp | Cys | Phe | Trp | Met | Lys | Ala | Phe | Gln | Trp | Cys |
| 305 | | | | | 310 | | | | | | 315 | | | | 320 |
| Asp | Phe | Glu | Trp | Asp | Pro | Val | Thr | Phe | Pro | Asp | Pro | Glu | Gly | Met | Ile |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Arg | Leu | Lys | Glu | Lys | Gly | Leu | Lys | Val | Cys | Val | Trp | Ile | Asn | Pro |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Tyr | Ile | Gly | Gln | Lys | Ser | Pro | Ile | Phe | Arg | Glu | Leu | Lys | Glu | Lys | Gly |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Tyr | Leu | Leu | Lys | Arg | Pro | Asp | Gly | Ser | Leu | Trp | Gln | Trp | Asp | Lys | Trp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gln | Pro | Gly | Leu | Ala | Ile | Tyr | Asp | Phe | Thr | Asn | Pro | Asp | Ala | Cys | Arg |
| 385 | | | | | 390 | | | | | | 395 | | | | 400 |
| Trp | Tyr | Ala | Asp | Lys | Leu | Lys | Gly | Leu | Val | Glu | Ile | Gly | Val | Asp | Cys |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Phe | Lys | Thr | Asp | Phe | Gly | Glu | Arg | Ile | Pro | Thr | Asp | Val | Gln | Trp | Phe |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Gly | Ser | Asp | Pro | Gln | Lys | Met | His | Asn | His | Tyr | Ala | Tyr | Ile | Tyr |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asn | Glu | Leu | Val | Trp | Asn | Val | Leu | Lys | Glu | Thr | Val | Gly | Glu | Glu | Glu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ala | Val | Leu | Phe | Ala | Arg | Ser | Ala | Ser | Val | Gly | Ala | Gln | Gln | Phe | Pro |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Val | His | Trp | Gly | Gly | Asp | Cys | Tyr | Ala | Asn | Tyr | Glu | Ser | Met | Ala | Glu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ser | Leu | Arg | Gly | Gly | Leu | Ser | Ile | Gly | Leu | Ser | Gly | Phe | Gly | Phe | Trp |
| | | 500 | | | | | | 505 | | | | | 510 | | |
| Ser | His | Asp | Ile | Gly | Gly | Phe | Glu | Asn | Thr | Ala | Pro | Ala | His | Val | Tyr |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Lys | Arg | Trp | Cys | Ala | Phe | Gly | Leu | Phe | Ser | Ser | His | Ser | Arg | Leu | His |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Gly | Ser | Lys | Ser | Tyr | Arg | Val | Pro | Trp | Ala | Tyr | Asp | Asp | Glu | Ser | Cys |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Asp | Val | Val | Arg | His | Phe | Thr | Gln | Leu | Lys | Cys | Gln | Leu | Met | Pro | Tyr |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Leu | Tyr | Arg | Gln | Ala | Ala | Leu | Ala | Arg | Glu | Phe | Gly | Thr | Pro | Met | Leu |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Arg | Ala | Met | Met | Leu | Glu | Phe | Pro | Asp | Asp | Pro | Ala | Cys | Asp | Tyr | Leu |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Asp | Arg | Gln | Tyr | Met | Leu | Gly | Asp | Ser | Met | Met | Val | Ala | Pro | Val | Phe |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ser | Glu | Ala | Gly | Asp | Val | Gln | Phe | Tyr | Leu | Pro | Glu | Gly | Arg | Trp | Thr |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| His | Leu | Trp | His | Asn | Asp | Glu | Ile | Glu | Gly | Ser | Arg | Trp | His | Lys | Gln |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Gln | His | Asp | Phe | Met | Ser | Leu | Pro | Val | Tyr | Val | Arg | Asp | Asn | Thr | Leu |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Leu | Ala | Leu | Gly | Asn | Asn | Asn | Gln | Lys | Pro | Asp | Tyr | Ala | Trp | His | Glu |
| | 675 | | | | | | 680 | | | | | 685 | | | |
| Gly | Thr | Ala | Phe | Gln | Leu | Phe | Asn | Leu | Ser | Asp | Gly | Ala | Thr | Ala | Val |

| | | |
|---|-----|-----|
| 690 | 695 | 700 |
| Ser Glu Val Pro Ala Ala Asp Gly Ser Val Leu Phe Thr Leu Lys Ala | | |
| 705 | 710 | 715 |
| Ser Arg Gln Gly Asp Val Val Thr Phe Thr Gly Thr Gly Asp Ala Gln | | |
| | 725 | 730 |
| Asn Trp Ser Val Cys Leu Arg Asn Val Gln Lys Val Gly Gly Val Lys | | |
| | 740 | 745 |
| Gly Gly Ser His Ala Gly Ser Glu Trp Gly Val Val Val Lys Ala Glu | | |
| | 755 | 760 |
| Gly Asp Glu Val Met Val His Leu Cys Ala Val Phe Thr Ser Glu Arg | | |
| | 770 | 775 |
| Pro Ile Arg Asp Tyr Leu Pro Gln | | 780 |
| 785 | 790 | |

<210> 7935

<211> 339

<212> PRT

<213> Enterobacter cloacae

<400> 7935

| | |
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| Gly Phe Leu Thr Met Gln Pro Ile Ser Gly Thr Pro Pro Arg Pro Pro | |
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| | 20 |
| Thr Gln Gln Arg Thr Val Leu Glu Arg Leu Ile Thr Arg Leu Ile Ala | |
| | 35 |
| Leu Thr Ser Gln Gln Asn Ala Glu Val Trp Ala Gly Val Lys His Asp | |
| | 50 |
| Leu Gly Val Arg Asn Asp Ala Gln Leu Gln Ser Arg His Phe Pro Ala | |
| 65 | 70 |
| Ala Glu Gln Asn Leu Asn Gln Arg Leu Thr Ser Ala Gln Gln Gln His | |
| | 85 |
| Thr Thr Arg Gln Ile Ile Ser Gln Leu Thr Glu Leu Leu Gly Gln Gly | |
| | 100 |
| Asn Asn Arg Gln Ala Val Ser Asp Phe Ile Arg Gln Gln Tyr Gly His | |
| | 115 |
| Thr Ala Leu Ser Gln Leu Ser Pro Glu Gln Leu Lys Thr Val Leu Thr | |
| | 130 |
| Leu Leu Gln Ser Asn Gln Leu Ser Ile Pro Gln Pro Gln Gln Arg Pro | |
| 145 | 150 |
| Ser Thr Glu Arg Pro Leu Gln Pro Ala Glu His Asn Thr Leu Lys Gln | |
| | 165 |
| Met Val Thr Lys Leu Ala Ala Ala Thr Gly Glu Pro Thr Lys Leu Ile | |
| | 180 |
| Trp Gln Ser Met Leu Glu Leu Ser Gly Val Lys Ala Gly Glu Met Ile | |
| | 195 |
| Pro Ala Lys Gln Phe Thr His Leu Val Thr Trp Leu Gln Ala Arg Gln | |
| | 210 |
| Thr Leu Ser Thr Gln Ser Ala Pro Thr Leu His Ser Val Gln Ala Ala | |
| 225 | 230 |
| Leu Lys Gln Pro Leu Glu Pro His Glu Phe Asp Thr Ile Arg Asp Tyr | |
| | 245 |
| Ala Gln Gln Ser Trp Gln Ala Thr Pro Gln Thr Val Leu Thr Thr Ala | |
| | 260 |
| Gln Val Gln Asp Val Leu Asn Gln Ile Phe Val Arg Arg Ala Glu Arg | |
| | 275 |
| Glu Gly Gly Val Pro Glu Val Arg Asn Ile Gln Pro Ile Tyr Asn Pro | |
| | 290 |
| Leu Phe Ala Pro Val Val Asp Thr Phe Lys Thr Leu Ser Ala Arg Pro | |
| 305 | 310 |
| Gly Leu Met Leu Ile Ala Leu Val Ile Ala Leu Ala Ile Phe Trp Leu | |
| | 315 |
| | 320 |

Val Ala

325 330 335

<210> 7936
 <211> 339
 <212> PRT
 <213> Enterobacter cloacae

<220>
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<400> 7936

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| Leu | Asn | Glu | Val | Met | Val | Met | Ser | Gln | Lys | Thr | Leu | Phe | Lys | Gln | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Ala | Val | Ala | Val | Ala | Ile | Val | Ser | Thr | Ser | Ala | Trp | Ser | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Phe | Gln | Leu | Asn | Glu | Phe | Ser | Ser | Ser | Gly | Leu | Gly | Arg | Ala | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Gly | Glu | Gly | Ala | Ile | Ala | Asp | Asp | Ala | Gly | Asn | Ala | Ser | Arg | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ala | Leu | Ile | Met | Met | Phe | Asp | Arg | Pro | Thr | Phe | Ser | Ala | Gly | Ala |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Val | Tyr | Ile | Asp | Pro | Asp | Val | Asn | Ile | Ser | Gly | Lys | Ser | Gln | Phe | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Ala | Asp | Leu | Lys | Ala | Asp | Asn | Ile | Ala | Pro | Thr | Ala | Trp | Val | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Leu | His | Phe | Val | Ala | Pro | Ile | Asn | Glu | Gln | Phe | Gly | Trp | Gly | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Val | Thr | Ser | Asn | Tyr | Gly | Leu | Ala | Thr | Glu | Phe | Asn | Asn | Asn | Tyr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Ala | Gly | Glu | Tyr | Gly | Gly | Lys | Thr | Asp | Leu | Thr | Thr | Leu | Asn | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asn | Leu | Ser | Gly | Ala | Tyr | Arg | Leu | Asn | Asp | Asn | Trp | Ser | Phe | Gly | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Phe | Asp | Ala | Val | Tyr | Ala | Asp | Ala | Lys | Ile | Glu | Arg | Tyr | Ser | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Gln | Thr | Ala | Ala | Leu | Pro | Lys | Asn | Ser | Asn | Lys | Ile | Ala | Ser | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Gly | Asp | Glu | Trp | Gly | Tyr | Gly | Trp | Asn | Ala | Gly | Ile | Leu | Tyr | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Asp | Lys | Asn | Asn | Arg | Trp | Gly | Leu | Thr | Tyr | Arg | Ser | Glu | Val | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ile | Asp | Phe | Asp | Gly | Asp | Tyr | Lys | Ser | Gly | Ile | Leu | Ser | Pro | Val | Asn |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Met | Val | Pro | Gly | Ala | Gly | Thr | Thr | Ile | Pro | Trp | Gly | Thr | Ser | Asn |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gln | Thr | Val | Pro | Gly | Ser | Leu | Ser | Leu | His | Leu | Pro | Lys | Met | Trp | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Ser | Gly | Tyr | Asn | Arg | Val | Ala | Pro | Gln | Trp | Ala | Ile | His | Tyr | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Ala | Tyr | Thr | Ser | Trp | Asn | Gln | Phe | Xaa | Glu | Leu | Lys | Ser | Thr | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ser | Asn | Gly | Gln | Thr | Leu | Phe | Tyr | Lys | Glu | Glu | Lys | Leu | Thr | Met | Leu |
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Tyr Leu Ser

<210> 7937
 <211> 61

<212> PRT

<213> Enterobacter cloacae

<400> 7937

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| Leu | Phe | Val | Ala | Arg | Arg | Glu | Gly | Ser | Ser | Asp | Gly | Ala | Ala | Ala | Ser |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Pro | Ala | Arg | Thr | Ser | Ser | Ala | Ala | Pro | Ser | Gly | Gly | Trp | Ala | Gly | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Cys | Val | Ala | Ala | Gly | Ser | Ile | Ser | Gly | Ser | Ser | Arg | Ser | Pro | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Thr | Ser | Gly | Met | Ala | Ala | Asn | Ser | Ser | Trp | | | | |
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<210> 7938

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<212> PRT

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<400> 7938

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| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Ser | Thr | Pro | Ser | Ala | Gly | Lys | Ile | Ser | Glu | Gln | Pro | Gln | Pro | Val | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ala | Pro | Ser | Ser | Ala | Thr | Asp | Ala | Glu | Gly | Ala | Cys | Gln | Ser | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Arg | Pro | Thr | Val | Ser | Met | Thr | Ser | Asp | Asp | Thr | Ala | Thr | Phe | Thr |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Pro | Pro | Lys | Arg | Ser | Ser | Ile | Gln | Pro | Asn | Ser | Thr | Arg | Ile | Asn | Thr |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Ala | Pro | Pro | Lys | Ala | Val | Ser | Val | Lys | Pro | Ala | Ile | Ala | Gln | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Met | Lys | | | | | | | | | | | | |
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<210> 7939

<211> 724

<212> PRT

<213> Enterobacter cloacae

<400> 7939

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| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Phe | Glu | Ser | His | Asn | Ser | Val | His | Leu | Tyr | Ala | Glu | Gln | Val | Arg | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Ile | Phe | Cys | Gly | Asn | Leu | His | Arg | Trp | Ala | His | Ile | Ala | Lys | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Pro | Leu | Pro | Val | Gly | Arg | Val | Thr | Tyr | Val | Lys | Gln | Asn | Ala | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gln | Pro | Ala | Asn | Leu | Glu | Phe | Asn | Ala | Glu | Gly | Thr | Pro | Val | Ser | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asp | Phe | Asp | Asp | Val | Tyr | Phe | Ser | Asn | Asp | Asn | Gly | Leu | Glu | Glu | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Tyr | Val | Phe | Leu | Glu | Gly | Asn | His | Leu | Ser | Thr | Arg | Phe | Pro | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Pro | Arg | Arg | Leu | Phe | Val | Val | Ala | Glu | Ser | Gly | Phe | Gly | Thr | Gly |
| | | 115 | | | | | | 120 | | | | 125 | | | |
| Leu | Asn | Phe | Leu | Thr | Leu | Trp | Gln | Ala | Phe | Asp | Cys | Phe | Arg | Ala | Ala |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Tyr | Pro | Glu | Ala | Thr | Leu | Gln | Arg | Leu | His | Phe | Ile | Ser | Phe | Glu | Lys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Pro | Leu | Thr | Ala | His | Asp | Leu | Arg | Leu | Ala | His | Gln | Arg | Trp | Pro |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 165 | | | | 170 | | | | 175 | | | |
| Glu | Leu | Ala | His | Trp | Ala | Glu | Gln | Leu | Gln | Thr | Gln | Trp | Pro | Pro | Ala |
| 180 | | | | 185 | | | | 190 | | | | 195 | | | |
| Ile | Gly | Gly | Cys | His | Arg | Leu | Ile | Leu | Asp | Asp | Gly | Arg | Val | Thr | Leu |
| 195 | | | | 200 | | | | 205 | | | | 210 | | | |
| Asp | Leu | Trp | Leu | Gly | Asp | Ile | Asn | Asp | Leu | Thr | Asp | Lys | Leu | Asp | Asp |
| 210 | | | | 215 | | | | 220 | | | | 225 | | | |
| Ser | Met | Asn | Gln | Lys | Val | Asp | Ala | Trp | Phe | Leu | Asp | Gly | Phe | Ala | Pro |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Ala | Lys | Asn | Pro | Asp | Met | Trp | Ser | Pro | His | Leu | Phe | Ser | Ala | Met | Ala |
| 245 | | | | 250 | | | | 255 | | | | 260 | | | |
| Arg | Leu | Ala | Arg | Pro | Gly | Ala | Thr | Leu | Ala | Thr | Phe | Thr | Ser | Ala | Gly |
| 260 | | | | 265 | | | | 270 | | | | 275 | | | |
| Phe | Val | Arg | Arg | Gly | Leu | Gln | Glu | Ala | Gly | Phe | Thr | Met | Arg | Lys | Thr |
| 275 | | | | 280 | | | | 285 | | | | 290 | | | |
| Lys | Gly | Phe | Gly | Arg | Lys | Arg | Asp | Met | Leu | Val | Gly | Val | Met | Glu | Gln |
| 290 | | | | 295 | | | | 300 | | | | 305 | | | |
| Asp | Leu | Ala | Ile | Pro | Ala | Gln | Ala | Pro | Trp | Phe | Ala | Arg | Arg | Ala | Ser |
| 310 | | | | 315 | | | | 320 | | | | 325 | | | |
| Thr | Ser | Arg | Glu | Val | Ala | Ile | Val | Gly | Gly | Gly | Ile | Ala | Ser | Ala | Leu |
| 325 | | | | 330 | | | | 335 | | | | 340 | | | |
| Leu | Ser | Leu | Ala | Leu | Leu | His | Arg | Gly | Trp | Gln | Val | Thr | Leu | Tyr | Cys |
| 340 | | | | 345 | | | | 350 | | | | 355 | | | |
| Ala | Asp | Glu | Ala | Pro | Ala | Thr | Gly | Ala | Ser | Gly | Asn | Arg | Gln | Gly | Ala |
| 355 | | | | 360 | | | | 365 | | | | 370 | | | |
| Leu | Tyr | Pro | Leu | Leu | Ser | Ser | His | Asp | Pro | Ala | Leu | Phe | Gln | Phe | Phe |
| 370 | | | | 375 | | | | 380 | | | | 385 | | | |
| Pro | Ala | Ala | Phe | Thr | Phe | Ala | Arg | Arg | Leu | Tyr | Asp | Ser | Leu | Pro | Val |
| 385 | | | | 390 | | | | 395 | | | | 400 | | | |
| Ala | Phe | Asp | His | Asp | Trp | Cys | Gly | Val | Thr | Gln | Leu | Gly | Trp | Asp | Glu |
| 405 | | | | 410 | | | | 415 | | | | 420 | | | |
| Lys | Ser | Gln | Gln | Lys | Ile | Thr | Gln | Met | Leu | Ser | Leu | Gly | Leu | Pro | Glu |
| 420 | | | | 425 | | | | 430 | | | | 435 | | | |
| Asp | Ile | Ala | His | Ala | Val | Thr | Ala | Gln | Gln | Val | Thr | Glu | Thr | Thr | Gly |
| 435 | | | | 440 | | | | 445 | | | | 450 | | | |
| Val | Asp | Thr | Gly | Cys | Gly | Gly | Ile | Gln | Tyr | Pro | Leu | Gly | Gly | Trp | Leu |
| 450 | | | | 455 | | | | 460 | | | | 465 | | | |
| Cys | Pro | Ala | Glu | Leu | Thr | Ser | Ala | Ala | Ile | Ala | Leu | Gly | Gln | Ser | Arg |
| 465 | | | | 470 | | | | 475 | | | | 480 | | | |
| Gly | Leu | Thr | Val | His | Tyr | Ala | His | Lys | Val | Gln | Ser | Leu | Ser | Arg | Thr |
| 485 | | | | 490 | | | | 495 | | | | 500 | | | |
| Ala | His | Trp | Lys | Leu | Arg | Phe | Ala | Asp | Gly | Lys | Glu | Ala | Gln | His | Ala |
| 500 | | | | 505 | | | | 510 | | | | 515 | | | |
| Ser | Val | Val | Leu | Ala | Asn | Gly | His | His | Ile | Thr | Gln | Phe | Thr | Gln | Thr |
| 515 | | | | 520 | | | | 525 | | | | 530 | | | |
| Ala | Ser | Leu | Ala | Val | Tyr | Pro | Val | Gly | Gly | Gln | Val | Ser | His | Ile | Pro |
| 530 | | | | 535 | | | | 540 | | | | 545 | | | |
| Thr | Ala | Pro | Gln | Leu | Ser | Lys | Leu | Arg | Gln | Val | Leu | Cys | Tyr | Asp | Gly |
| 545 | | | | 550 | | | | 555 | | | | 560 | | | |
| Tyr | Leu | Thr | Pro | Gln | Asn | Pro | Ser | Asn | Gly | His | His | Cys | Ile | Gly | Ala |
| 565 | | | | 570 | | | | 575 | | | | 580 | | | |
| Ser | Tyr | His | Arg | Gly | Glu | Thr | Asp | Met | Gln | Tyr | Ser | Glu | Ala | Asp | Gln |
| 580 | | | | 585 | | | | 590 | | | | 595 | | | |
| Gln | Gln | Asn | Arg | Gln | Arg | Leu | Val | Asp | Cys | | | | | | |

Ala Val Ser Ala Pro Val His Pro Glu Leu Phe Met Leu Gly Gly Leu
660 665 670
Gly Ser Arg Gly Leu Cys Ser Ala Pro Leu Leu Ala Glu Ala Leu Ala
675 680 685
Ala Gln Met Ser Asp Glu Pro Val Pro Leu Asp Arg Val Thr Leu Ala
690 695 700
Gly Leu Asn Pro Asn Arg Leu Trp Val Arg Lys Leu Leu Lys Gly Lys
705 710 715 720
Met Val Lys

<210> 7940

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 7940

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20 25 30
His Arg Pro Gln Arg Lys Lys Ile Ser Glu Val Pro Val Lys Arg Leu
35 40 45
Leu Gln Glu Gln Ala Asp Asn Ser His Tyr Phe Ser Asp Glu Phe Gln
50 55 60
Pro Leu Leu Ser Thr Gln Gly Ala Val Lys Tyr Val Arg Glu Asp Val
65 70 75 80
Ser His Phe Glu Leu Lys Lys Leu Arg Arg Gly Asp Tyr Ser Pro Glu
85 90 95
Leu Phe Leu Asp Leu His Gly Leu Thr Gln Met Gln Ala Lys Gln Glu
100 105 110
Leu Gly Ala Leu Ile Ala Ala Cys Arg Arg Glu His Val Phe Cys Ala
115 120 125
Cys Val Met His Gly His Gly Lys His Ile Leu Lys Gln Gln Thr Pro
130 135 140
Leu Trp Leu Ala Gln His Pro His Val Met Ala Phe His Gln Ala Pro
145 150 155 160
Lys Glu Tyr Gly Gly Asp Ala Ala Leu Leu Val Leu Ile Glu Val Glu
165 170 175
Glu Trp Gln Pro Pro Glu Leu Pro
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<210> 7941

<211> 167

<212> PRT

<213> Enterobacter cloacae

<400> 7941

Gln Lys Arg Cys Asn Met Gln Val Phe Ile Met Arg His Gly Asp Ala
1 5 10 15
Ala Leu Asp Ala Ala Ser Asp Ser Val Arg Pro Leu Thr Val Cys Gly
20 25 30
Cys Asp Glu Ser Arg Gln Met Ala Thr Trp Leu Lys Gly Gln Lys Val
35 40 45
Asp Ile Glu Arg Val Leu Val Ser Pro Phe Leu Arg Ala Glu Gln Thr
50 55 60
Leu Asp Val Val Gly Glu Cys Met Asn Leu Pro Ser Ser Val Asp Val
65 70 75 80
Leu Pro Glu Leu Thr Pro Cys Gly Asp Val Gly Leu Val Ser Ala Tyr
85 90 95
Leu Gln Ala Leu Cys Asn Glu Gly Val Ala Ser Ala Leu Val Ile Ser


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<210> 7942
<211> 274
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|---------|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Ala 1 | Cys | Thr | Leu | Met 5 | Asp | Asn | Phe | Val | Asp 10 | Leu | Phe | Met | Val | Ser 15 | Pro |
| Leu | Leu | Leu | Ala 20 | Val | Leu | Phe | Phe | Val 25 | Ala | Met | Leu | Ala | Gly 30 | Phe | Ile |
| Asp | Ala 35 | Leu | Ala | Gly | Gly | Gly | Gly 40 | Leu | Leu | Thr | Val | Pro 45 | Ala | Leu | Leu |
| Ala | Ala 50 | Gly | Met | Ser | Pro | Ala 55 | Gln | Ala | Leu | Ala | Thr 60 | Asn | Lys | Leu | Gln |
| Ala 65 | Cys | Gly | Gly | Ser 70 | Leu | Ser | Ser | Ser | Leu | Tyr 75 | Phe | Ile | Arg | Arg | Lys 80 |
| Val | Val | Asn | Leu | Ala 85 | Asp | Gln | Lys | Leu | Asn 90 | Ile | Leu | Met | Thr | Phe | Ile 95 |
| Gly | Ser | Thr | Ala 100 | Gly | Ala | Leu | Leu | Val 105 | Gln | His | Val | Gln | Ser 110 | Asp | Ile |
| Leu | Arg | Gln | Ile 115 | Leu | Pro | Leu | Leu | Val 120 | Ile | Cys | Ile | Gly 125 | Leu | Tyr | Phe |
| Leu | Leu 130 | Met | Pro | Lys | Leu | Gly 135 | Glu | Glu | Asp | Arg | Gln 140 | Arg | Arg | Leu | His |
| Gly 145 | Leu | Pro | Phe | Ala 150 | Leu | Ile | Ala | Gly | Gly | Cys 155 | Val | Gly | Phe | Tyr | Asp 160 |
| Gly | Phe | Phe | Gly | Pro 165 | Gly | Ala | Gly | Ser | Phe 170 | Tyr | Ala | Leu | Ala | Phe | Val 175 |
| Thr | Leu | Ala | Gly 180 | Phe | Asn | Leu | Ala | Lys 185 | Ser | Thr | Ala | His | Ala 190 | Lys | Val |
| Leu | Asn | Ala 195 | Thr | Ser | Asn | Val | Gly 200 | Gly | Leu | Leu | Leu | Phe 205 | Ile | Ile | Gly |
| Gly | Lys 210 | Val | Ile | Trp | Ala | Thr 215 | Gly | Phe | Val | Met | Met 220 | Ala | Gly | Gln | Phe |
| Leu 225 | Gly | Ala | Arg | Ala 230 | Gly | Ser | Arg | Leu | Val | Leu | Ser 235 | Lys | Gly | Gln | Lys 240 |
| Leu | Ile | Arg | Pro | Met 245 | Ile | Val | Val | Val | Ser 250 | Ala | Val | Met | Ser | Ala 255 | Lys |
| Leu | Leu | Tyr | Asp 260 | Ser | His | Gly | Gln | Glu 265 | Ile | Leu | Thr | Trp | Leu 270 | Gly | Met |

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<210> 7943
<211> 122
<212> PRT
<213> Enterobacter cloacae
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Ser Arg Leu Tyr Arg Ile Ile Thr Thr Arg Arg Arg Ser Arg Arg Asn
1 5 10 15

Ala Ser Arg Gly Arg Lys Ile Phe Asn Arg Gly Lys Lys Met Ile Ala
 20 25 30
 Glu Phe Glu Ser Arg Ile Leu Ala Leu Ile Asp Asp Met Val Glu His
 35 40 45
 Ala Ser Asp Asp Glu Leu Phe Ala Ser Gly Tyr Leu Arg Gly His Leu
 50 55 60
 Thr Leu Ala Val Ala Ala Leu Glu Ala Gly Asp Asp His Ser Ala Asp
 65 70 75 80
 Ala Val His Ala Glu Val Thr Arg Ser Leu Glu Asn Ala Ile Gln Ala
 85 90 95
 Gly Glu Leu Ser Pro Arg Asp Gln Ser Leu Val Leu Gly Met Trp Asp
 100 105 110
 Asn Leu Phe Gln Gln Ala Lys Ala Lys
 115 120

<210> 7944

<211> 406

<212> PRT

<213> Enterobacter cloacae

<400> 7944

Met Lys Arg Ala Val Ile Thr Gly Leu Gly Ile Val Ser Ser Ile Gly
 1 5 10 15
 Asn Asn Gln Gln Glu Val Leu Ala Ser Leu Arg Glu Gly Arg Ser Gly
 20 25 30
 Ile Thr Phe Ser Glu Glu Phe Lys Asp Ser Gly Met Arg Ser His Val
 35 40 45
 Trp Gly Asn Val Lys Leu Asp Thr Thr Gly Leu Ile Asp Arg Lys Val
 50 55 60
 Val Arg Phe Met Asn Asp Ala Ser Ile Tyr Ala Tyr Leu Ser Met Gln
 65 70 75 80
 Glu Ala Ile Lys Asp Ser Gly Leu Ser Glu Asp Val Tyr Gln Asn Asn
 85 90 95
 Pro Arg Val Gly Leu Ile Ala Gly Ser Gly Gly Ser Ser Lys Ala Gln
 100 105 110
 Val Phe Gly Ala Asp Ala Met Arg Ser Pro Arg Gly Leu Lys Ala Val
 115 120 125
 Gly Pro Tyr Val Val Thr Lys Ala Met Gly Ser Ala Val Ser Ala Cys
 130 135 140
 Leu Ala Thr Pro Phe Lys Ile His Gly Val Asn Tyr Ser Ile Ser Ser
 145 150 155 160
 Ala Cys Ala Thr Ser Ala His Cys Ile Gly Asn Ala Val Glu Gln Ile
 165 170 175
 Gln Leu Gly Lys Gln Asp Ile Val Phe Ala Gly Gly Gly Glu Glu Leu
 180 185 190
 Gly Trp Glu Met Ala Cys Glu Phe Asp Ala Met Gly Ala Leu Ser Thr
 195 200 205
 Lys Tyr Asn Glu Thr Pro Asp Lys Ala Ser Arg Thr Tyr Asp Ala His
 210 215 220
 Arg Asp Gly Phe Val Ile Ala Gly Gly Gly Gly Met Val Val Val Glu
 225 230 235 240
 Glu Leu Glu His Ala Leu Ala Arg Gly Ala His Ile Tyr Ala Glu Ile
 245 250 255
 Val Gly Tyr Gly Ala Thr Ser Asp Gly Ala Asp Met Val Ala Pro Ser
 260 265 270
 Gly Glu Gly Ala Val Arg Cys Met Lys Met Ala Met His Gly Val Asp
 275 280 285
 Thr Pro Ile Asp Tyr Leu Asn Ser His Gly Thr Ser Thr Pro Val Gly
 290 295 300
 Asp Val Lys Glu Leu Gly Ala Ile Arg Glu Val Phe Gly Asp Asn Ser
 305 310 315 320

Pro Ala Ile Ser Ala Thr Lys Ala Met Thr Gly His Ser Leu Gly Ala
 325 330 335
 Ala Gly Val Gln Glu Ala Ile Tyr Ser Leu Leu Met Leu Glu Asn Gly
 340 345 350
 Phe Ile Ala Pro Ser Ile Asn Ile Glu Glu Met Asp Glu Gln Ala Ala
 355 360 365
 Gly Leu Asn Ile Val Thr Glu Thr Thr Glu Arg Glu Leu Thr Thr Val
 370 375 380
 Met Ser Asn Ser Phe Gly Phe Gly Gly Thr Asn Ala Thr Leu Val Met
 385 390 395 400
 Arg Lys Leu Lys Ala
 405

<210> 7945

<211> 334

<212> PRT

<213> Enterobacter cloacae

<400> 7945

Cys Ala Thr Phe Met Val Cys Trp Arg Gln Lys Trp His Tyr Ser Pro
 1 5 10 15
 Leu Thr Ala Lys Leu Ala Tyr Asp Gln Val Gln Ala Glu Arg Leu Ser
 20 25 30
 Met Ser Trp Ile Glu Arg Ile Lys Ser Asn Ile Thr Pro Thr Arg Lys
 35 40 45
 Ala Ser Ile Pro Glu Gly Val Trp Thr Lys Cys Asp Ser Cys Gly Gln
 50 55 60
 Val Leu Tyr Arg Ala Glu Leu Glu Arg Asn Leu Glu Val Cys Pro Lys
 65 70 75 80
 Cys Asp His His Met Arg Met Ser Ala Arg Asn Arg Leu His Ser Leu
 85 90 95
 Leu Asp Glu Gly Ser Leu Val Glu Leu Gly Ser Glu Leu Glu Pro Lys
 100 105 110
 Asp Val Leu Lys Phe Arg Asp Ser Lys Lys Tyr Lys Asp Arg Leu Ala
 115 120 125
 Ser Ala Gln Lys Glu Thr Gly Glu Lys Asp Ala Leu Ile Val Met Lys
 130 135 140
 Gly Thr Leu His Glu Met Pro Val Val Ala Ala Phe Glu Phe Ser
 145 150 155 160
 Phe Met Gly Gly Ser Met Gly Ser Val Val Gly Ala Arg Phe Val Arg
 165 170 175
 Ala Val Glu Gln Ala Leu Glu Asp Asn Cys Pro Leu Ile Cys Phe Ser
 180 185 190
 Ala Ser Gly Gly Ala Arg Met Gln Glu Ala Leu Met Ser Leu Met Gln
 195 200 205
 Met Ala Lys Thr Ser Ala Ala Leu Ala Lys Met Gln Glu Arg Gly Leu
 210 215 220
 Pro Tyr Ile Ser Val Leu Thr Asp Pro Thr Met Gly Gly Val Ser Ala
 225 230 235 240
 Ser Phe Ala Met Leu Gly Asp Leu Asn Ile Ala Glu Pro Lys Ala Leu
 245 250 255
 Ile Gly Phe Ala Gly Pro Arg Val Ile Glu Gln Thr Val Arg Glu Lys
 260 265 270
 Leu Pro Pro Gly Phe Gln Arg Ser Glu Phe Leu Ile Glu Lys Gly Ala
 275 280 285
 Ile Asp Met Ile Val Arg Arg Pro Glu Met Arg Leu Lys Leu Ala Ser
 290 295 300
 Ile Leu Ala Lys Leu Met Asn Leu Pro Ala Pro Asn Pro Asp Glu Pro
 305 310 315 320
 Arg Glu Gly Val Val Val Pro Asp Gln Glu Pro Glu Ala
 325 330

<210> 7946
 <211> 124
 <212> PRT
 <213> Enterobacter cloacae

<400> 7946

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Gln | Ile | His | Leu | His | Gly | Ser | Arg | Arg | Arg | Arg | Ala | Ala | Gly | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Leu | Cys | Val | Arg | Leu | Arg | Ser | Arg | Asn | Ala | Asp | Leu | Pro | Val | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Ala | Leu | Ile | Leu | Phe | Ala | Arg | Ala | Tyr | Asp | Arg | Val | Gly | Arg | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Gln | Arg | Arg | Asn | Pro | Ala | Thr | Asn | Leu | Thr | Asn | Ala | Ser | Ala | Met |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Gln | Gly | His | Phe | Leu | Phe | Leu | Leu | Cys | Ala | Leu | Ala | Arg | Asn | Phe | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Leu | Pro | Arg | Leu | Ala | Gln | Cys | Lys | Lys | Ile | Val | Lys | Thr | Ile | Ile | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Asp | His | Leu | Met | Cys | Ala | Gln | Asn | Phe | Phe | Thr | Gly | Glu | Cys | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Ser | Gly | Ile | Thr | Ala | Tyr | His | Pro | Thr | Arg | | | | | |
| | | 115 | | | | | 120 | | | | | | | | |

<210> 7947
 <211> 717
 <212> PRT
 <213> Enterobacter cloacae

<400> 7947

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Met | Glu | Thr | Thr | Ser | Ala | Phe | Asn | Leu | Ala | Val | Arg | Leu | Asp | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ala | Val | Ile | Thr | Ile | Asp | Val | Pro | Asp | Glu | Lys | Met | Asn | Thr | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Ala | Glu | Phe | Gly | Val | Gln | Val | Arg | Ala | Met | Leu | Arg | Gln | Ile | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Asn | Lys | Ala | Ile | Arg | Gly | Leu | Val | Phe | Ile | Ser | Ala | Lys | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Phe | Ile | Ala | Gly | Ala | Asp | Ile | Asn | Met | Ile | Ala | Arg | Ala | Lys | Ser |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Gln | Glu | Ala | Glu | Asp | Leu | Ala | Arg | Gln | Gly | Gln | Gln | Val | Met | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Ile | His | Ala | Leu | Ser | Ile | Pro | Val | Val | Ala | Ala | Ile | His | Gly | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Cys | Leu | Gly | Gly | Gly | Leu | Glu | Leu | Ala | Leu | Ala | Cys | His | Ser | Arg | Ile |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Cys | Thr | Asp | Asp | Ala | Lys | Thr | Val | Leu | Gly | Leu | Pro | Glu | Val | Gln | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Leu | Leu | Pro | Gly | Ser | Gly | Gly | Thr | Gln | Arg | Leu | Pro | Arg | Leu | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Val | Ser | Thr | Ala | Leu | Glu | Met | Ile | Leu | Thr | Gly | Lys | Gln | Leu | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Arg | Gln | Ala | Leu | Lys | Ala | Gly | Leu | Val | Asp | Glu | Val | Val | Pro | His |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Ala | Ile | Leu | Glu | Ala | Ala | Val | Glu | Arg | Ala | Leu | Lys | Gly | Arg | Gln | |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Ala | Lys | Arg | Pro | Leu | Pro | Val | Arg | Glu | Arg | Ile | Leu | Ala | Gly | Pro | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Arg | Thr | Leu | Leu | Phe | Asn | Met | Val | Gly | Lys | Lys | Thr | Glu | Gln | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Thr | Lys | Gly | Asn | Tyr | Pro | Ala | Ala | Thr | Arg | Ile | Leu | Lys | Val | Ile | Glu |

<210> 7948

<211> 72
 <212> PRT
 <213> Enterobacter cloacae

<400> 7948

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Ile | Val | Ala | Val | Ile | Gly | Leu | Leu | Leu | Glu | Gln | Thr | Phe | Asp | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Leu | Ala | Asp | Phe | Phe | Thr | Leu | Arg | Ala | Met | Asp | Asn | Gly | Val | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Asp | Leu | Thr | Arg | Pro | Gly | His | Gln | Leu | Ala | Glu | Glu | Ser | Leu | Ile |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Ala | Glu | Arg | Cys | Phe | Leu | Phe | His | Ser | Ser | Phe | Ser | Ser | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Ser | Asp | Ser | Val | Pro | Asp | | | | | | | | | |
| 65 | | | | | 70 | | | | | | | | | | |

<210> 7949

<211> 325
 <212> PRT
 <213> Enterobacter cloacae

<400> 7949

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Asp | His | Gln | Arg | Ala | Ser | Arg | Ser | Val | Arg | Gly | Asp | Pro | Arg | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Asp | Arg | Arg | Ser | Asp | Ala | Gly | Asp | Arg | Ala | Asp | Gly | Ser | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Pro | Ala | Arg | Ala | Glu | Cys | Gly | Cys | Asp | Asp | His | His | Ser | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Thr | Met | Lys | Lys | Thr | Ala | Ile | Ala | Leu | Leu | Ala | Leu | Leu | Val | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ala | Ser | Leu | Ala | Ala | Thr | Pro | Trp | Gln | Lys | Ile | Thr | His | Pro | Val |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ala | Gly | Ser | Ala | Gln | Ser | Ile | Gly | Ala | Phe | Ser | Asn | Gly | Cys | Ile | Val |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Gly | Ala | Gln | Glu | Leu | Pro | Leu | Gln | Ser | Asp | Thr | Tyr | Gln | Val | Met | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Asp | Gln | Arg | Arg | Tyr | Phe | Gly | His | Pro | Asp | Leu | Val | Leu | Phe | Ile |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Gln | Arg | Leu | Gly | Asn | Gln | Val | His | Asn | Leu | Gly | Leu | Gly | Thr | Met | Leu |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Ile | Gly | Asp | Met | Gly | Met | Pro | Ala | Gly | Gly | Arg | Phe | Asn | Gly | Gly | His |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Ala | Ser | His | Gln | Thr | Gly | Leu | Asp | Val | Asp | Ile | Phe | Leu | Gln | Leu | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Lys | Thr | Arg | Trp | Ser | Ser | Ala | Gln | Leu | Leu | Lys | Pro | Gln | Ala | Leu | Asp |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Leu | Val | Ser | Ala | Asp | Gly | Lys | Arg | Val | Val | Ala | Ser | Arg | Trp | Ser | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Ile | Ser | Ser | Met | Ile | Lys | Leu | Ala | Ala | Glu | Asp | Asn | Asp | Val | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Ile | Phe | Val | Asn | Pro | Ala | Ile | Lys | Gln | Gln | Leu | Cys | Leu | Asp | Ala |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Gly | Thr | Asp | Arg | Asp | Trp | Leu | Arg | Lys | Val | Arg | Pro | Trp | Phe | Gln | His |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Arg | Ala | His | Met | His | Val | Arg | Leu | Arg | Cys | Pro | Ala | Asn | Ser | Leu | Glu |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Cys | Glu | Asp | Gln | Pro | Leu | Pro | Pro | Gly | Asp | Gly | Cys | Gly | Tyr | Glu | |
| | | 275 | | | | | 280 | | | | 285 | | | | |
| Leu | Gln | Ser | Trp | Phe | Glu | Pro | Ala | Lys | Pro | Gly | Thr | Ser | Lys | Pro | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Lys | Thr | Pro | Pro | Pro | Leu | Pro | Pro | Ser | Cys | Gln | Ala | Leu | Leu | Asp |

320

325

<400> 7950

<400> 7951

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Gly | Ile | Met | Glu | Asn | Lys | Ser | Ile | Pro | Gln | Ala | Thr | Ser | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ala | Ala | Trp | Leu | Ser | Tyr | Leu | Glu | Asn | Leu | His | Ser | Lys | Thr | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Met | Gly | Leu | Glu | Arg | Val | Ser | Gln | Val | Ala | Ala | Arg | Leu | Asp | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

Leu Lys Pro Ala Pro Phe Val Phe Thr Val Ala Gly Thr Asn Gly Lys
 50 55 60
 Gly Thr Thr Cys Arg Thr Leu Glu Ser Val Leu Met Ala Ala Gly Tyr
 65 70 75 80
 Lys Val Gly Val Tyr Ser Ser Pro His Leu Val Arg Tyr Thr Glu Arg
 85 90 95
 Val Arg Val Gln Asn Thr Glu Leu Ala Glu Ser Ala His Thr Ala Ser
 100 105 110
 Phe Ala Ala Ile Glu Ala Ala Arg Gly Glu Thr Ser Leu Thr Tyr Phe
 115 120 125
 Glu Tyr Gly Thr Leu Ser Ala Leu Trp Leu Phe Lys Gln Ala Gln Leu
 130 135 140
 Asp Val Val Ile Leu Glu Val Gly Leu Gly Gly Arg Leu Asp Ala Thr
 145 150 155 160
 Asn Met Val Asp Ala Asp Val Ala Val Val Thr Ser Ile Ala Leu Asp
 165 170 175
 His Thr Asp Trp Leu Gly Pro Asp Arg Glu Ser Ile Gly Arg Glu Lys
 180 185 190
 Ala Gly Ile Phe Arg Ala Asn Lys Pro Ala Val Val Gly Glu Pro Asp
 195 200 205
 Met Pro His Thr Ile Ala Glu Val Ala Lys Glu Lys Gly Ala Arg Leu
 210 215 220
 Leu Arg Arg Gly Val Asp Trp Gln Tyr Glu Val Gln Asp Asn Gly Trp
 225 230 235 240
 Arg Phe Ser Asp Ala Gln Gly Val Leu Glu Ser Leu Pro Leu Ser Gln
 245 250 255
 Val Pro Gln Pro Asn Ala Ala Thr Ala Leu Ala Ala Leu Arg Ala Ser
 260 265 270
 Gly Leu Ala Val Ser Glu Gln Ala Ile Arg Asp Gly Ile Gln Asn Ala
 275 280 285
 Leu Leu Pro Gly Arg Phe Gln Ile Val Ser Glu Ser Pro Arg Leu Ile
 290 295 300
 Leu Asp Val Ala His Asn Pro His Ala Ala Tyr Leu Ala Gly Arg
 305 310 315 320
 Leu Lys Ser Leu Pro Lys Thr Gly Arg Val Leu Ala Val Ile Gly Met
 325 330 335
 Leu His Asp Lys Asp Ile Gly Gly Thr Leu Ala Cys Met Glu Ser Val
 340 345 350
 Val Asp Ser Trp Tyr Cys Ala Pro Leu Glu Gly Pro Arg Gly Ala Thr
 355 360 365
 Ala Glu Gln Leu Met Glu His Leu Gly Lys Gly Glu Ile Tyr Ser Ser
 370 375 380
 Val Val Ser Ala Trp Arg Ala Ala Met Ala Glu Ala Lys Pro Glu Asp
 385 390 395 400
 Thr Val Leu Val Cys Gly Ser Phe His Thr Val Ala His Val Met Glu
 405 410 415
 Val Met Asp Ala Gly Arg Thr Gly Gly Glu
 420 425

<210> 7952

<211> 96

<212> PRT

<213> Enterobacter cloacae

<400> 7952

Ala Met Ser Lys Cys Ser Ala Asp Glu Thr Pro Val Cys Cys Cys Met
 1 5 10 15
 Asp Val Gly Thr Ile Met Asp Asn Thr Asp Cys Thr Ala Ser Tyr Ser
 20 25 30
 Arg Val Phe Pro Asn Arg Ala Glu Ala Glu Glu Thr Leu Ala Ala Leu
 35 40 45

Ser Gln Arg Ala Arg Glu Val Glu Ser Asp Pro Cys Glu Ile Lys Ser
 50 55 60
 Thr Phe Thr Glu Val Glu Gly Gly Val Gln Leu Asp Ile Asp Phe Val
 65 70 75 80
 Phe Ala Cys Glu Ala Glu Thr Leu Ile Phe Gln Leu Gly Leu Arg
 85 90 95

<210> 7953

<211> 448

<212> PRT

<213> Enterobacter cloacae

<400> 7953

Cys Ala Arg Lys Ile Phe Leu Gln Gly Ser Val Met Ser Gln Ala Leu
 1 5 10 15
 Pro Leu Ile Thr Arg His Gly Asp Arg Ile Ala Ile Ile Ser Gly Leu
 20 25 30
 Arg Thr Pro Phe Ala Arg Gln Ala Thr Ala Phe His Gly Ile Pro Ala
 35 40 45
 Val Asp Leu Gly Lys Met Val Val Gly Glu Met Leu Ala Arg Ser Glu
 50 55 60
 Ile Pro Pro Glu Val Ile Glu Gln Leu Val Phe Gly Gln Val Val Gln
 65 70 75 80
 Met Pro Glu Ala Pro Asn Ile Ala Arg Glu Ile Val Leu Gly Thr Gly
 85 90 95
 Met Asn Val His Thr Asp Ala Tyr Ser Val Ser Arg Ala Cys Ala Thr
 100 105 110
 Ser Phe Gln Ala Val Ala Asn Val Ala Glu Ser Leu Met Ala Gly Thr
 115 120 125
 Ile Arg Ala Gly Ile Ala Gly Gly Ala Asp Ser Ser Val Leu Pro
 130 135 140
 Ile Gly Val Ser Lys Gln Leu Ala Arg Ile Leu Val Asp Ala Asn Lys
 145 150 155 160
 Ala Arg Thr Thr Gly Ala Lys Leu Lys Leu Phe Ser Arg Leu Arg Leu
 165 170 175
 Arg Asp Leu Met Pro Val Pro Pro Ala Val Ala Glu Tyr Ser Thr Gly
 180 185 190
 Leu Arg Met Gly Asp Thr Ala Glu Gln Met Ala Lys Thr Tyr Gly Ile
 195 200 205
 Thr Arg Glu Gln Gln Asp Ala Leu Ala His Arg Ser His Gln Leu Ala
 210 215 220
 Ala Lys Ala Trp Ser Glu Gly Lys Leu Ala Asp Glu Val Met Thr Ala
 225 230 235 240
 Tyr Ile Pro Pro Phe Arg Glu Pro Leu Val Glu Asp Asn Asn Ile Arg
 245 250 255
 Gly Thr Ser Thr Leu Glu Asp Tyr Ala Lys Leu Arg Pro Ala Phe Asp
 260 265 270
 Arg Lys His Gly Thr Val Thr Ala Ala Asn Ser Thr Pro Leu Thr Asp
 275 280 285
 Gly Ala Ala Ala Val Ile Leu Met Thr Glu Ser Arg Ala Lys Glu Leu
 290 295 300
 Gly Ile Thr Pro Leu Gly Tyr Leu Arg Ser Tyr Ala Phe Thr Ala Ile
 305 310 315 320
 Asp Val Trp Gln Asp Met Leu Leu Gly Pro Ala Trp Ser Thr Pro Leu
 325 330 335
 Ala Leu Glu Arg Ala Gly Leu Thr Leu Ala Asp Leu Thr Leu Ile Asp
 340 345 350
 Met His Glu Ala Phe Ala Ala Gln Thr Leu Ala Asn Ile Gln Leu Leu
 355 360 365
 Ala Ser Glu Arg Phe Ala Arg Asp Val Leu Gly Arg Ala His Ala Thr
 370 375 380

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Val | Asp | Gln | Ser | Lys | Phe | Asn | Val | Leu | Gly | Gly | Ser | Ile | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Tyr | Gly | His | Pro | Phe | Ala | Ala | Thr | Gly | Ala | Arg | Met | Ile | Thr | Gln | Thr |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Leu | His | Glu | Leu | Arg | Arg | Arg | Gly | Gly | Gly | Phe | Gly | Leu | Val | Thr | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Cys | Ala | Ala | Gly | Gly | Leu | Gly | Ala | Ala | Met | Val | Leu | Glu | Ala | Glu | |
| | | 435 | | | | | 440 | | | | | 445 | | | |

<210> 7954

<211> 341

<212> PRT

<213> Enterobacter cloacae

<400> 7954

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Gln | Ala | Thr | Arg | Val | Ile | Ala | Asp | Leu | Ser | Pro | Ser | Ser | Trp | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Ser | Arg | Arg | Lys | Leu | Cys | Glu | His | Ala | Leu | Glu | Glu | Arg | Val | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Lys | Ile | Phe | Val | Asp | Glu | Ala | Val | Asn | Glu | Leu | His | Thr | Ile | Gln | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Leu | Arg | Trp | Ser | Val | Ser | Arg | Phe | Ser | Ala | Ala | Asn | Ile | Trp | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | His | Gly | Thr | Asp | Asn | Pro | Trp | Asp | Glu | Ala | Val | Gln | Leu | Val | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Ser | Leu | Tyr | Leu | Pro | Leu | Asp | Ile | Pro | Glu | Asp | Met | Arg | Thr | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Leu | Thr | Ser | Ser | Glu | Lys | His | Arg | Ile | Val | Glu | Arg | Val | Ile | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Val | Asn | Glu | Arg | Ile | Pro | Val | Ala | Tyr | Leu | Thr | Asn | Lys | Ala | Trp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Cys | Gly | His | Glu | Phe | Tyr | Val | Asp | Glu | Arg | Val | Leu | Val | Pro | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Pro | Ile | Gly | Glu | Leu | Ile | Asn | Asn | His | Phe | Asp | Gly | Leu | Ile | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Gln | Pro | Gln | His | Ile | Leu | Asp | Met | Cys | Thr | Gly | Ser | Gly | Cys | Ile |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Ala | Ile | Ala | Cys | Ala | Tyr | Ala | Phe | Pro | Glu | Ala | Glu | Val | Asp | Ala | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Ile | Ser | Thr | Asp | Ala | Leu | Ala | Val | Thr | Glu | His | Asn | Ile | Glu | Glu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| His | Gly | Leu | Ile | His | His | Val | Thr | Pro | Ile | Arg | Ser | Asp | Leu | Phe | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Leu | Pro | Thr | Leu | Gln | Tyr | Asp | Leu | Ile | Val | Thr | Asn | Pro | Pro | Tyr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Asp | Ala | Glu | Asp | Met | Ser | Asp | Leu | Pro | Asn | Glu | Tyr | Arg | His | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Glu | Leu | Gly | Leu | Ala | Ser | Gly | Ser | Asp | Gly | Leu | Lys | Leu | Thr | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Ile | Leu | Ala | Cys | Ala | Pro | Asp | Tyr | Leu | Thr | Asp | Asp | Gly | Val | Leu |
| | | | 275 | | | | 280 | | | | | | 285 | | |
| Ile | Cys | Glu | Val | Gly | Asn | Ser | Met | Val | His | Leu | Ile | Glu | Gln | Tyr | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Val | Pro | Phe | Thr | Trp | Leu | Glu | Phe | Asp | Asn | Gly | Gly | Asp | Gly | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Phe | Met | Leu | Thr | Lys | Ala | Gln | Leu | Leu | Asp | Ala | Arg | Glu | Tyr | Phe | Ser |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Tyr | Lys | Asp | | | | | | | | | | | | |
| | | | 340 | | | | | | | | | | | | |

<210> 7955

<211> 382
 <212> PRT
 <213> Enterobacter cloacae

<400> 7955

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Gly | Leu | Arg | Pro | Val | Ser | Gln | Arg | Ser | Asn | Thr | Asn | Asn | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Gly | Ala | Val | Met | Ala | Gly | Asn | Ser | Ile | Gly | Gln | Val | Phe | Arg | Val |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Thr | Thr | Phe | Gly | Glu | Ser | His | Gly | Leu | Ala | Leu | Gly | Cys | Ile | Val | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Val | Pro | Pro | Gly | Ile | Glu | Leu | Thr | Glu | Ala | Asp | Leu | Gln | His | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Asp | Arg | Arg | Arg | Pro | Gly | Thr | Ser | Arg | Tyr | Thr | Thr | Gln | Arg | Arg |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Glu | Pro | Asp | Gln | Val | Lys | Ile | Leu | Ser | Gly | Val | Phe | Glu | Gly | Arg | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Thr | Gly | Thr | Ser | Ile | Gly | Leu | Leu | Ile | Glu | Asn | Thr | Asp | Gln | Arg | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Asp | Tyr | Gly | Ala | Ile | Lys | Asp | Val | Phe | Arg | Pro | Gly | His | Ala | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Tyr | Thr | Tyr | Glu | Gln | Lys | Tyr | Gly | Phe | Arg | Asp | Tyr | Arg | Gly | Gly | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Ser | Ser | Ala | Arg | Glu | Thr | Ala | Met | Arg | Val | Ala | Ala | Gly | Ala | Ile |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ala | Lys | Lys | Tyr | Leu | Gln | Gln | Lys | Phe | Gly | Ile | Val | Ile | Arg | Gly | Cys |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Thr | Gln | Met | Gly | Asp | Ile | Pro | Leu | Ala | Ile | Lys | Asp | Trp | Glu | Gln |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Val | Glu | Leu | Asn | Pro | Phe | Phe | Cys | Ala | Asp | Ala | Asp | Lys | Leu | Asp | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Asp | Glu | Leu | Met | Arg | Gly | Leu | Lys | Lys | Glu | Gly | Asp | Ser | Ile | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Lys | Val | Thr | Val | Val | Ala | Asp | Gly | Val | Pro | Ala | Gly | Trp | Gly | Glu |
| 225 | | | | 230 | | | | | 235 | | | | | | 240 |
| Pro | Val | Phe | Asp | Arg | Leu | Asp | Ala | Asp | Ile | Ala | His | Ala | Leu | Met | Ser |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Ile | Asn | Ala | Val | Lys | Gly | Val | Glu | Ile | Gly | Asp | Gly | Phe | Asp | Val | Val |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Lys | Leu | Arg | Gly | Ser | Gln | Asn | Arg | Asp | Glu | Ile | Thr | Lys | Ala | Gly | Phe |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Gln | Ser | Asn | His | Ala | Gly | Gly | Ile | Leu | Gly | Gly | Ile | Ser | Ser | Gly | Gln |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Ile | Ile | Ala | Asn | Ile | Ala | Leu | Lys | Pro | Thr | Ser | Ser | Ile | Thr | Val |
| 305 | | | | 310 | | | | | 315 | | | | | | 320 |
| Pro | Gly | His | Thr | Ile | Asn | Arg | Ala | Gly | Asp | Glu | Val | Glu | Met | Ile | Thr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Lys | Gly | Arg | His | Asp | Pro | Cys | Val | Gly | Ile | Arg | Ala | Val | Pro | Ile | Ala |
| | | 340 | | | | | 345 | | | | | 350 | | | |
| Glu | Ala | Met | Leu | Ala | Ile | Val | Leu | Met | Asp | His | Phe | Leu | Arg | Gln | Arg |
| | 355 | | | | | 360 | | | | | | 365 | | | |
| Ala | Gln | Asn | Ala | Asp | Val | Thr | Thr | Thr | Ile | Pro | Arg | Trp | | | |
| | 370 | | | | | 375 | | | | | 380 | | | | |

<210> 7956
 <211> 180
 <212> PRT
 <213> Enterobacter cloacae

<400> 7956

Ser Cys Glu Ser Arg Arg Ser Glu Ala Gln Tyr Pro Asp Asp Val Tyr


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1           5           10           15
Trp Leu Asn Gly Gly Arg Ala Ala Gly Pro Ala Arg Thr Val Arg His
20           25           30
Ser Ala Pro Asp Pro Ala Ala Ala Gly Tyr Leu Tyr Arg Pro Leu Phe
35           40           45
Leu Thr His Ala Lys Ala Arg Gly Arg Arg Ser Thr Ala Ser Pro Ser
50           55           60
Arg Pro Ala Val Cys Ala Asp Arg Arg Trp Leu Arg Arg Phe Leu Arg
65           70           75           80
Trp Leu Leu Trp Pro Gly Gly Arg Leu Val Leu Arg Ala Gly Ile Arg
85           90           95
Asp Ala Gly Arg Val Gln Pro Arg Gln Ile His Arg Pro Arg Gln Ser
100          105          110
Pro Gln Arg Asp Leu Gln Arg Trp Arg Ser Ala Ala Val Tyr His Trp
115          120          125
Arg Gln Gly Tyr Leu Gly Asn Arg Val Cys Asp Asp Gly Arg Ala Val
130          135          140
Phe Gly Arg Ala Arg Arg Leu Ala Ser Gly Ile Lys Gln Arg Ala Lys
145          150          155          160
Ala Asp Pro Pro Asp Cys Cys Arg Leu Gly Gly Asp Glu Arg Gln
165          170          175
Thr Ser Leu
180

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<210> 7957

<211> 196

<212> PRT

<213> Enterobacter cloacae

<400> 7957

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Gln Pro Trp Thr Gly Asp Pro His Leu Val Gly Asp Glu Leu Met Asn
1           5           10           15
Ser Thr His Asn Tyr Glu Gln Leu Ile Glu Ile Phe Asp Ser Cys Phe
20           25           30
Ala Asp Asp Phe Asn Thr Arg Leu Ile Lys Gly Asp Asp Glu Pro Ile
35           40           45
Tyr Leu Pro Ala Asp Asp Glu Val Pro Tyr Asn Arg Ile Ile Phe Ala
50           55           60
His Gly Phe Tyr Ala Ser Gly Leu His Glu Ile Ser His Trp Cys Ile
65           70           75           80
Ala Gly Lys Ala Arg Arg Glu Leu Val Asp Phe Gly Tyr Trp Tyr Cys
85           90           95
Pro Asp Gly Arg Asp Ala Ala Thr Gln Gly Gln Phe Glu Asp Val Glu
100          105          110
Val Lys Pro Gln Ala Leu Glu Trp Leu Phe Cys Val Ala Ala Gly Phe
115          120          125
Pro Phe Asn Val Ser Cys Asp Asn Leu Glu Gly Asp Phe Glu Pro Asp
130          135          140
Arg Ile Val Phe Gln Arg Arg Val His Ala Gln Val Met Glu Tyr Leu
145          150          155          160
Glu Lys Gly Ile Pro Ala Arg Pro Ala Arg Leu Ile Glu Ala Leu Gln
165          170          175
Asn Tyr Tyr His Thr Pro Glu Ile Thr Ala Glu Arg Phe Pro Trp Pro
180          185          190
Glu Asp Leu
195

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<210> 7958

<211> 413

<212> PRT

<213> Enterobacter cloacae

<400> 7958

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Tyr | Ser | Arg | Arg | Glu | Pro | Arg | Gly | Ser | Leu | Phe | Leu | Cys | Leu | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Glu | Leu | Cys | Met | Lys | Ala | Val | Thr | Pro | Glu | Lys | Ser | Ala | Pro | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Asn | Leu | Ser | Leu | Phe | Arg | Ile | Ala | Phe | Ala | Val | Phe | Leu | Thr | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Thr | Val | Gly | Leu | Pro | Leu | Pro | Val | Ile | Pro | Leu | Phe | Val | His | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Leu | Gly | Tyr | Gly | Asn | Thr | Met | Val | Gly | Ile | Ala | Val | Gly | Ile | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Phe | Leu | Ala | Thr | Val | Leu | Thr | Arg | Gly | Tyr | Ala | Gly | Arg | Leu | Ala | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | His | Gly | Ala | Lys | Arg | Ser | Ala | Leu | Gln | Gly | Met | Phe | Ala | Cys | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Ala | Gly | Gly | Ala | Trp | Leu | Leu | Ala | Ala | Leu | Leu | Pro | Ile | Asp | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Tyr | Lys | Phe | Ala | Leu | Leu | Val | Val | Gly | Arg | Leu | Ile | Leu | Gly | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Glu | Ser | Gln | Leu | Leu | Thr | Gly | Thr | Leu | Thr | Trp | Gly | Met | Gly | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Val | Gly | Pro | Ala | Arg | Ser | Gly | Lys | Val | Met | Ser | Trp | Asn | Gly | Met | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Tyr | Gly | Ala | Leu | Ala | Ala | Gly | Ala | Pro | Leu | Gly | Leu | Leu | Ile | His |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Ser | Gln | Phe | Gly | Phe | Ala | Ala | Leu | Ala | Gly | Thr | Thr | Met | Val | Leu | Pro |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Leu | Leu | Ala | Trp | Ala | Phe | Asn | Gly | Ser | Val | Arg | Lys | Val | Pro | Ala | His |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Gly | Glu | Arg | Pro | Ser | Leu | Trp | Ser | Val | Val | Gly | Gln | Ile | Trp | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Gly | Leu | Gly | Leu | Ala | Leu | Gln | Gly | Val | Gly | Phe | Ala | Val | Ile | Gly |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Thr | Phe | Val | Ser | Leu | Tyr | Phe | Met | Ser | Arg | Gly | Trp | Ala | Met | Ala | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Thr | Leu | Thr | Ala | Phe | Gly | Gly | Ala | Phe | Val | Leu | Met | Arg | Val | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Gly | Trp | Met | Leu | Asp | Arg | Phe | Gly | Gly | Val | Lys | Val | Ala | Val | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ser | Leu | Val | Ile | Glu | Thr | Val | Gly | Leu | Val | Leu | Leu | Trp | Gln | Ala | Pro |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ser | Ala | Ser | Val | Ala | Leu | Leu | Gly | Ala | Ala | Leu | Thr | Gly | Cys | Gly | Cys |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ser | Leu | Ile | Phe | Pro | Ala | Leu | Gly | Val | Glu | Val | Val | Lys | Arg | Val | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Gln | Val | Arg | Gly | Thr | Ala | Leu | Gly | Gly | Tyr | Ala | Ala | Phe | Gln | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Ser | Tyr | Gly | Ile | Thr | Gly | Pro | Leu | Ala | Gly | Leu | Leu | Ala | Thr | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Phe | Gly | Tyr | Pro | Ser | Val | Phe | Leu | Ala | Gly | Ala | Val | Ser | Ala | Val | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Ile | Val | Val | Thr | Met | Val | Ala | Phe | Arg | Lys | Arg | | | | |
| | | | | 405 | | | | | 410 | | | | | | |

<210> 7959

<211> 389

<212> PRT

<213> Enterobacter cloacae

<400> 7959

Val Tyr Phe Leu Ser Asn Arg Tyr Ser Asp Val Lys Ile Leu Val Asp
 1 5 10 15
 Glu Asn Met Pro Tyr Ala Arg Glu Leu Phe Ser Arg Leu Gly Glu Val
 20 25 30
 Lys Ala Val Pro Gly Arg Pro Ile Pro Val Ser Glu Leu Asp Asp Ala
 35 40 45
 Asp Ala Leu Met Val Arg Ser Val Thr Lys Val Asn Glu Ala Leu Leu
 50 55 60
 Thr Gly Lys Gly Val Lys Phe Val Gly Thr Ala Thr Ala Gly Thr Asp
 65 70 75 80
 His Val Asp Asp Gln Trp Leu Lys Gln Ala Gly Ile Gly Phe Ser Ala
 85 90 95
 Ala Pro Gly Cys Asn Ala Ile Ala Val Val Glu Tyr Val Phe Ser Ser
 100 105 110
 Leu Leu Met Leu Ala Glu Arg Asp Gly Phe Thr Leu Lys Asp Arg Thr
 115 120 125
 Val Gly Ile Val Gly Val Gly Asn Val Gly Gly Arg Leu Gln Lys Arg
 130 135 140
 Leu Glu Ala Trp Gly Ile Ser Thr Leu Leu Cys Asp Pro Pro Arg Lys
 145 150 155 160
 Asp Asn Gly Asp Glu Gly Asp Phe Arg Thr Leu Asp Glu Leu Val Asp
 165 170 175
 Glu Cys Asp Val Ile Thr Phe His Thr Pro Leu Phe Lys Glu Gly Pro
 180 185 190
 Tyr Lys Thr Leu His Leu Ala Asp Glu Lys Leu Ile Arg Arg Leu Lys
 195 200 205
 Ala Gly Thr Ile Leu Ile Asn Ala Cys Arg Gly Pro Val Val Asp Asn
 210 215 220
 Ala Ala Leu Leu Ala Cys Leu Asp Glu Gly Gln Glu Leu Ser Val Val
 225 230 235 240
 Leu Asp Val Trp Glu Pro Glu Pro Asp Leu Asn Val Ala Leu Leu Asp
 245 250 255
 Lys Val Asp Val Gly Thr Ala His Ile Ala Gly Tyr Thr Leu Glu Gly
 260 265 270
 Lys Ala Arg Gly Thr Thr Gln Val Phe Glu Ala Tyr Ser Ala Phe Ile
 275 280 285
 Gly His Pro Gln Gln Val Ala Leu Asp Thr Leu Leu Pro Ala Pro Glu
 290 295 300
 Phe Gly Arg Ile Thr Leu His Gly Leu Leu Asp Glu Ala Thr Leu Lys
 305 310 315 320
 Arg Leu Val His Leu Val Tyr Asp Val Arg Arg Asp Asp Ala Leu Leu
 325 330 335
 Arg Lys Val Ala Gly Ile Pro Gly Glu Phe Asp Lys Leu Arg Lys Asn
 340 345 350
 Tyr Leu Glu Arg Arg Glu Trp Ser Ser Leu Tyr Val Met Cys Asp Asp
 355 360 365
 Ala Ser Ala Ala Gly Leu Leu His Lys Leu Gly Phe Asn Ala Val His
 370 375 380
 His Pro Ala Arg
 385

<210> 7960

<211> 340

<212> PRT

<213> Enterobacter cloacae

<400> 7960

Thr Thr Met Ser Glu Gly Trp Asn Ile Ala Ile Leu Gly Ala Thr Gly
 1 5 10 15
 Ala Val Gly Glu Ala Leu Leu Glu Thr Leu Ala Glu Arg Gln Phe Pro
 20 25 30

Val Gly Glu Ile Tyr Ala Leu Ala Arg Thr Asp Ser Ala Gly Glu Gln
 35 40 45
 Leu Arg Phe Gly Gly Lys Ser Leu Met Val Gln Asp Ala Ala Ala Phe
 50 55 60
 Asp Trp Thr Gln Ala Gln Leu Ala Phe Phe Ala Ala Gly Ala Gln Ala
 65 70 75 80
 Thr Ala Ser Tyr Ile Glu Glu Ala Thr Asn Ser Gly Cys Leu Val Ile
 85 90 95
 Asp Leu Ser Gly Leu Phe Ser Leu Glu Pro Asp Val Ser Leu Val Val
 100 105 110
 Pro Asp Val Asn Pro Phe Val Leu Ala Asp Tyr Arg Asn Arg Asn Ile
 115 120 125
 Ile Ala Val Pro Asn Ser Leu Thr Ser Gln Leu Leu Thr Ala Leu Lys
 130 135 140
 Pro Leu Ile Asp Asp Gly Gly Leu Ser Arg Ile Ser Val Thr Ser Leu
 145 150 155 160
 Leu Ser Ala Ser Ala Asn Gly Lys Lys Ala Val Asp Ala Leu Ala Gly
 165 170 175
 Gln Ser Ala Lys Leu Leu Asn Gly Ile Pro Ile Asp Glu Asp Asp Phe
 180 185 190
 Phe Gly Arg Gln Leu Ala Phe Asn Met Leu Pro Leu Leu Pro Asp Arg
 195 200 205
 Glu Gly Ser Val Arg Glu Glu Arg Arg Ile Val Asp Glu Ala Arg Lys
 210 215 220
 Ile Leu Gln Asp Asp Gly Leu Met Ile Ser Ala Asn Val Val Gln Ser
 225 230 235 240
 Pro Val Phe Tyr Gly His Ala Gln Met Val Gly Phe Glu Ala Leu Arg
 245 250 255
 Pro Leu Ala Ala Glu Glu Ala Arg Asp Ala Phe Gly Arg Gly Glu Asp
 260 265 270
 Ile Val Leu Ser Glu Glu Ser Glu Phe Pro Thr Gln Val Gly Asp Ala
 275 280 285
 Thr Gly Ser Ala His Leu Ser Val Gly Cys Val Arg Asn Asp Tyr Gly
 290 295 300
 Met Pro Glu Gln Val Gln Phe Trp Ser Val Ala Asp Asn Val Arg Phe
 305 310 315 320
 Gly Gly Ala Leu Met Ala Val Lys Ile Ala Glu Lys Leu Val Gln Glu
 325 330 335
 Tyr Leu Tyr
 340

<210> 7961

<211> 224

<212> PRT

<213> Enterobacter cloacae

<400> 7961

Gly Leu Asp Asn Met Asp Val Ile Arg Phe Leu Ile Asp Phe Ile Leu
 1 5 10 15
 His Ile Asp Val His Leu Ala Glu Leu Val Ala Gln Tyr Gly Val Trp
 20 25 30
 Val Tyr Ala Ile Leu Phe Leu Ile Leu Phe Cys Glu Thr Gly Leu Val
 35 40 45
 Val Thr Pro Phe Leu Pro Gly Asp Ser Leu Leu Phe Val Ala Gly Ala
 50 55 60
 Leu Ser Ala Leu Pro Thr Asn Asp Leu Asn Val His Leu Met Val Val
 65 70 75 80
 Leu Met Ile Ile Ala Ala Ile Val Gly Asp Ala Val Asn Tyr Thr Ile
 85 90 95
 Gly Arg Val Phe Gly Glu Arg Leu Phe Ser Asn Pro Asp Ser Lys Ile
 100 105 110


```

Phe Arg Arg Ser Tyr Leu Asp Lys Thr His Ala Phe Tyr Glu Arg His
    115      120      125
Gly Gly Lys Thr Ile Ile Leu Ala Arg Phe Val Pro Ile Val Arg Thr
    130      135      140
Phe Ala Pro Phe Val Ala Gly Met Gly His Met Ser Tyr Arg His Phe
145      150      155      160
Ala Met Tyr Asn Val Val Gly Ala Leu Leu Trp Val Leu Leu Phe Thr
    165      170      175
Tyr Ala Gly Tyr Leu Phe Gly Asp Leu Pro Val Val Gln Glu Asn Leu
    180      185      190
Lys Leu Leu Ile Val Ala Ile Ile Val Leu Ser Val Leu Pro Gly Val
    195      200      205
Ile Glu Ile Ile Arg His Lys Arg Ala Ala Ala Lys Gln Ala Lys
    210      215      220

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<210> 7962

<211> 113

<212> PRT

<213> Enterobacter cloacae

<400> 7962

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Trp Thr Arg Gly Glu Pro Val Ala Ser Lys Phe Gln Asn Arg Leu Thr
1      5      10      15
Gly Thr Ile Val Leu Val Ala Leu Gly Val Ile Ile Leu Pro Gly Leu
    20      25      30
Leu Asp Gly Gln Lys Lys His Tyr Gln Asp Glu Phe Ala Ala Ile Pro
    35      40      45
Leu Val Pro Lys Pro Gly Asp Arg Asp Glu Pro Asp Met Leu Pro Ala
    50      55      60
Ala Thr Gln Ala Leu Pro Ala Gln Pro Pro Glu Gly Ala Ala Glu Glu
65      70      75      80
Val Arg Ala Gly Asp Ala Ala Ala Pro Ser Leu Asp Pro Ser Arg Leu
    85      90      95
Ala Thr Asn Asn His Ile Leu His Gln Gly Ser Cys Arg Ser Ala Ser
    100      105      110
His

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<210> 7963

<211> 257

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (252)

<400> 7963

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Val Lys Asp Tyr Met Val Ala Arg Thr Ser Arg Lys Glu Arg Phe Ser
1      5      10      15
Met Phe Arg Asp Arg Pro Leu Lys Arg Met Lys Ser Pro Arg Asp Glu
    20      25      30
Asp Asp Val Glu Asp Asp Ile Asp Gly Leu Asp Asp Asp Gly Val Gly
    35      40      45
Glu Val Arg Val His Arg Val Asn Thr Ala Pro Gly Ala Ala His Gly
    50      55      60
Glu His Glu Ala Pro Arg Ala Pro Gln His Gln Tyr Gln Pro Pro Tyr
65      70      75      80
Ala Ser Ala Gln Pro Arg Gln Pro Ala Pro Pro Pro Val Glu Glu Pro
    85      90      95
Val Arg His Pro Pro His Gln Pro Val Gln Gln Gln Pro Val Ala Pro

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Pro | Val | Gln | Pro | Gln | Pro | Val | Gln | Gln | Pro | Ala | Gln | Pro | Val | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Pro | Gln | Pro | Val | Gln | Gln | Pro | Gln | Pro | Val | Gln | Gln | Pro | Gln | Pro |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Gln | Pro | Glu | Pro | Pro | Ala | Pro | Gln | Pro | Ala | Pro | Arg | Ala | Glu | Pro | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Val | Ala | Glu | Pro | Glu | Pro | Val | Val | Glu | Lys | Pro | Gln | Arg | Lys | Glu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Val | Ile | Ile | Met | Asn | Val | Ala | Ala | His | His | Gly | Thr | His | Leu | Asn |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Asp | Val | Leu | Leu | Asn | Ser | Ile | Gln | Gln | Ala | Gly | Phe | Lys | Phe | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Met | Asn | Ile | Phe | His | Arg | His | Leu | Ser | Pro | Asp | Gly | Ser | Gly | Pro |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | Phe | Ser | Leu | Ala | Asn | Met | Val | Asn | Pro | Gly | Thr | Leu | Val | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Tyr | Leu | Gly | Asn | Ser | Thr | Asp | Ala | Arg | Lys | Asn | Xaa | Ile | Ser | Pro | Pro |
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<211> 271

<212> PRT

<213> Enterobacter cloacae

<400> 7964

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| Ile | Pro | Pro | Ala | Val | Thr | Ile | Ser | Ser | Gly | Arg | Phe | Met | His | Ala | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ser | Thr | Gln | Arg | Ala | Thr | Thr | Arg | Leu | Cys | Ile | Gln | Cys | Gly | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Leu | Leu | Gln | His | Gly | Ala | Glu | Ser | Ala | Leu | Val | Glu | Glu | Leu | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Thr | Arg | Leu | Gly | Leu | Ala | Leu | Gly | Met | Asp | Ser | Val | Glu | Ser | Ser | Ile |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Ser | Asn | Ala | Ile | Val | Leu | Thr | Thr | Ile | Lys | Asp | Gly | Gln | Cys | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ser | Thr | Arg | Lys | Asn | His | Asp | Arg | Gly | Ile | Asn | Met | His | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Glu | Val | Gln | His | Ile | Val | Ile | Leu | Ala | Glu | His | Arg | Leu | Leu | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Arg | Glu | Ile | Glu | Lys | Arg | Phe | Asn | Gln | Ile | Lys | Pro | Leu | Arg | Tyr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Arg | Trp | Leu | Val | Val | Leu | Met | Val | Gly | Leu | Ser | Cys | Ala | Cys | Phe |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Cys | Lys | Leu | Asn | Ala | Gly | Trp | Asp | Gly | Ala | Val | Val | Thr | Phe | Phe | |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Ala | Ser | Ser | Ile | Ala | Met | Tyr | Val | Arg | Gln | Leu | Leu | Thr | His | Arg | Gln |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | His | Pro | Gln | Ile | Asn | Phe | Cys | Ile | Thr | Ala | Phe | Val | Ala | Thr | Thr |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Ser | Gly | Leu | Leu | Leu | Arg | Gln | Pro | Tyr | Phe | Ala | Ser | Thr | Pro | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Ala | Met | Ala | Ala | Ser | Val | Leu | Leu | Leu | Val | Pro | Gly | Phe | Pro | Leu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ile | Asn | Ala | Val | Ala | Asp | Met | Phe | Lys | Gly | His | Ile | Asn | Thr | Gly | Leu |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Ala | Arg | Trp | Ala | Ile | Ala | Ser | Leu | Leu | Thr | Leu | Ala | Thr | Cys | Ile | Gly |
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Val Val Met Ala Met Thr Leu Trp Gly Leu Arg Gly Trp Ala

260

265

270

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<211> 493

<212> PRT

<213> Enterobacter cloacae

<400> 7965

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| Gly | Asp | Cys | Lys | Met | Lys | Lys | Ile | Asn | His | Trp | Ile | Asn | Gly | Lys | Asn |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ala | Gly | Ser | Glu | Tyr | Phe | Gln | Thr | Thr | Asn | Pro | Ala | Ser | Gly | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Leu | Ala | Glu | Val | Ala | Ser | Gly | Gly | Glu | Ala | Glu | Ile | His | Gln | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Ala | Ala | Ala | Lys | Glu | Ala | Phe | Pro | Lys | Trp | Ala | Asn | Leu | Pro | Met |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Lys | Glu | Arg | Ala | Arg | Leu | Met | Arg | Arg | Leu | Gly | Asp | Leu | Ile | Asp | Gln |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Asn | Val | Pro | Asp | Ile | Ala | Ala | Met | Glu | Thr | Ala | Asp | Thr | Gly | Leu | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | His | Gln | Thr | Lys | Asn | Val | Leu | Ile | Pro | Arg | Ala | Ser | His | Asn | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Phe | Phe | Ala | Glu | Val | Cys | Gln | Gln | Met | Asn | Gly | Lys | Thr | Tyr | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Asp | Asp | Lys | Met | Leu | Asn | Tyr | Thr | Leu | Val | Gln | Pro | Val | Gly | Val |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Cys | Ala | Leu | Val | Ser | Pro | Trp | Asn | Val | Pro | Phe | Met | Thr | Ala | Thr | Trp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Val | Ala | Pro | Cys | Leu | Ala | Leu | Gly | Asn | Thr | Ala | Val | Leu | Lys | Met |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Glu | Leu | Ser | Pro | Leu | Thr | Ala | Asp | Arg | Leu | Gly | Glu | Leu | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Ala | Gly | Ile | Pro | Ala | Gly | Val | Leu | Asn | Val | Val | Gln | Gly | Tyr | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Thr | Ala | Gly | Asp | Ala | Leu | Val | Arg | His | His | Asp | Val | Arg | Ala | Val |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ser | Phe | Thr | Gly | Gly | Thr | Ala | Thr | Gly | Arg | Asn | Ile | Met | Lys | Asn | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Leu | Lys | Lys | Tyr | Ser | Met | Glu | Leu | Gly | Gly | Lys | Ser | Pro | Val | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ile | Phe | Glu | Asp | Ala | Asp | Ile | Glu | Arg | Ala | Leu | Asp | Ala | Ala | Leu | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Thr | Ile | Phe | Ser | Ile | Asn | Gly | Glu | Arg | Cys | Thr | Ala | Gly | Ser | Arg | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Ile | Gln | Gln | Ser | Ile | Tyr | Pro | Glu | Phe | Val | Lys | Arg | Phe | Ala | Glu |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Arg | Ala | Asn | Arg | Leu | Arg | Val | Gly | Asp | Pro | Thr | Asp | Pro | Asn | Thr | Gln |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Gly | Ala | Leu | Ile | Ser | Gln | Gln | His | Trp | Glu | Lys | Val | Ser | Gly | Tyr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Arg | Leu | Gly | Ile | Glu | Glu | Gly | Ala | Thr | Leu | Leu | Ala | Gly | Gly | Pro |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Lys | Pro | Thr | Asp | Leu | Pro | Ala | His | Leu | Lys | Gly | Gly | Asn | Phe | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Arg | Pro | Thr | Val | Leu | Ala | Asp | Val | Asp | Asn | Arg | Met | Arg | Val | Ala | Gln |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Glu | Glu | Ile | Phe | Gly | Pro | Val | Ala | Cys | Leu | Leu | Pro | Phe | Lys | Asp | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Glu | Gly | Leu | Arg | Leu | Ala | Asn | Asp | Val | Glu | Tyr | Gly | Leu | Ala | Ser |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Ile | Trp | Thr | Gln | Asp | Val | Ser | Lys | Val | Leu | Arg | Leu | Ala | Arg | Asn |

<400> 7968
Leu Ala Ile Val Ser Arg Thr Ile Tyr Ile His Phe Met Asp Ala Lys

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Met | Asn | Asp | Thr | Thr | Asn | Ala | Leu | Leu | Leu | Asp | Asn | Gln | Leu |
| | | | 20 | | | | | 25 | | | | 30 | Cys Phe |
| Ala | Leu | Tyr | Ser | Ala | Asn | Leu | Ala | Leu | Asn | Lys | Leu | Tyr | Arg |
| | | 35 | | | | | 40 | | | | | 45 | Gln Leu |
| Leu | Ala | Pro | Leu | Asn | Leu | Thr | Tyr | Pro | Gln | Tyr | Leu | Val | Met |
| | 50 | | | | | 55 | | | | | 60 | | Leu Val |
| Leu | Trp | Glu | Gln | Asp | Asp | Ile | Thr | Val | Ser | Asp | Ile | Gly | Glu |
| 65 | | | | 70 | | | | | 75 | | | | Arg Leu |
| Phe | Leu | Asp | Ser | Ala | Thr | Leu | Thr | Pro | Leu | Leu | Lys | Arg | Leu |
| | | | 85 | | | | | 90 | | | | | Glu Ser |
| Ala | Gly | Leu | Ile | Phe | Arg | Gln | Arg | Ser | Arg | Gln | Asp | Glu | Arg |
| | | | 100 | | | | | 105 | | | | 110 | Gln Val |
| Ala | Val | Thr | Leu | Ser | Asp | Ala | Gly | Arg | Ala | Leu | Gln | Gln | Gln |
| | 115 | | | | | | 120 | | | | | 125 | Ala Val |
| Thr | Ile | Pro | His | Ala | Val | Gly | Cys | Ala | Ala | Gln | Cys | Asp | Thr |
| | 130 | | | | | 135 | | | | | 140 | | Asp Thr |
| Met | Leu | Ala | Leu | Lys | His | Gln | Leu | Glu | Leu | Leu | Arg | Gln | Gln |
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<211> 148

<212> PRT

<213> Enterobacter cloacae

<400> 7969

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| Asp | Glu | Glu | Pro | Ala | Met | Ser | Leu | Glu | Lys | Val | Val | Tyr | Thr | Ala | Lys |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Ala | Lys | Ala | Thr | Gly | Gly | Arg | Asp | Gly | Arg | Ala | Thr | Ser | Ser | Asp | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Leu | Asp | Val | Lys | Leu | Gly | Val | Pro | Lys | Glu | Met | Gly | Gly | Met | Gly |
| | 35 | | | | | 40 | | | | | 45 | | | | |
| Gly | Glu | Val | Thr | Asn | Pro | Glu | Gln | Leu | Phe | Ala | Ala | Gly | Tyr | Ser | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Cys | Phe | Leu | Gly | Ala | Met | Lys | Phe | Val | Ala | Ala | Arg | Asp | Lys | Phe | Ala |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Pro | Lys | Asp | Ala | Phe | Ile | Glu | Gly | Glu | Val | Gly | Ile | Gly | Pro | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Pro | Thr | Gly | Phe | Gly | Ile | Glu | Ala | Lys | Leu | Asn | Ile | His | Val | Glu | Gly |
| | 100 | | | | | | 105 | | | | | | 110 | | |
| Met | Asp | Ala | Ala | Glu | Ala | Lys | Lys | Leu | Val | Asp | Ala | Ala | His | Ile | Val |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Cys | Pro | Tyr | Ser | Asn | Ala | Thr | Arg | Gly | Asn | Ile | Asp | Val | Thr | Leu | Asn |
| | 130 | | | | | 135 | | | | | 140 | | | | |
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<211> 252

<212> PRT

<213> Enterobacter cloacae

<400> 7970

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| Trp | Ile | Pro | Arg | Cys | Glu | Met | Lys | Asn | Val | Gly | Asp | Leu | Met | Lys | Arg |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Leu | Gln | Lys | Met | Met | Pro | Ala | Asn | Val | Lys | Pro | Ala | Phe | Thr | Thr | Gly |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Glu | Glu | Leu | Leu | Ala | Trp | Gln | Lys | Glu | Gln | Gly | Lys | Ile | Arg | Ala | Ala |
| | 35 | | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Ala | Arg | Glu | Asn | Arg | Ala | Met | Lys | Met | Gln | Arg | Thr | Phe | Asn |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Arg | Ser | Gly | Ile | Arg | Pro | Leu | His | Gln | Asn | Cys | Ser | Phe | Glu | Asn | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Val | Glu | Ser | Gln | Gly | Gln | Met | Asn | Ala | Leu | Asn | Gln | Ala | Arg | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Val | Asp | Glu | Phe | Asp | Gly | Asn | Ile | Ala | Ser | Phe | Ile | Phe | Ser | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Pro | Gly | Thr | Gly | Lys | Asn | His | Leu | Ala | Ala | Ala | Ile | Cys | Asn | Glu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Leu | Leu | Arg | Gly | Lys | Ser | Val | Leu | Ile | Ile | Thr | Val | Ala | Asp | Ile |
| | 130 | | | | | | 135 | | | | 140 | | | | |
| Met | Ser | Ala | Met | Lys | Asp | Thr | Phe | Ser | Asn | Arg | Glu | Thr | Ser | Glu | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gln | Leu | Leu | Asn | Asp | Leu | Ser | Asn | Val | Asp | Leu | Leu | Val | Ile | Asp | Glu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ile | Gly | Val | Gln | Thr | Glu | Ser | Arg | Tyr | Glu | Lys | Val | Ile | Ile | Asn | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Val | Asp | Arg | Arg | Ser | Ser | Ser | Lys | Arg | Pro | Thr | Gly | Met | Leu | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asn | His | Asn | Ile | Asp | Glu | Met | Thr | Arg | Leu | Leu | Gly | Glu | Arg | Val | Met |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Asp | Arg | Met | Lys | Leu | Gly | Asn | Ser | Leu | Tyr | Val | Ile | Phe | Asp | Trp | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Tyr | Arg | Ser | Arg | Val | Thr | Gly | Lys | Glu | Tyr | | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 7971

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| Ile | Ile | Met | Lys | Lys | Gln | Phe | Leu | Ile | Ser | Ile | Leu | Thr | Gly | Thr | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Val | Thr | Gly | Ala | Ala | Gln | Ala | Ala | Ser | Trp | Gln | Glu | Ser | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Ala | Ser | Glu | Leu | Thr | Lys | Glu | Ser | Gly | Thr | Ser | Gln | Gly | Gly |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Leu | Ser | Ala | Ser | Ser | Leu | Thr | Gly | Leu | Leu | Ser | Asn | Ser | Ser | Gln | Ser |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Ser | Ala | Gly | Thr | Met | Asn | Asn | Ala | Ala | Gly | Ile | Leu | Glu | Tyr | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Lys | Gln | Lys | Leu | Ala | Ser | Val | Thr | Asp | Thr | Glu | Asn | Ile | Lys | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Val | Leu | Gly | Lys | Leu | Gly | Leu | Asp | Thr | Gln | Glu | Gln | Lys | Ala | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Asn | Tyr | Met | Asp | Gly | Ile | Gln | Gly | Leu | Leu | Asn | Ala | Gln | Asn | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | Gln | Leu | Asn | Leu | Ser | Thr | Leu | Gly | Asn | Ser | Ser | Leu | Ala | Lys | Gln |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Val | Lys | Thr | Lys | Ala | Cys | Asp | Leu | Val | Leu | Lys | Gln | Gly | Val | Asn | Phe |
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| Leu | Ser | | | | | | | | | | | | | | |

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<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 7972

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| Asn | Cys | Glu | Gln | Arg | Trp | Leu | Met | Thr | Ala | Phe | Thr | Leu | Arg | Pro | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Ile | Asp | Asp | Val | Ala | Ala | Leu | Pro | Ala | Ile | Glu | Arg | Ala | Ala | Gly |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Arg | Phe | Arg | Asp | Val | Pro | Glu | Leu | Ala | Trp | Leu | Ala | Asp | Asn | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Ile | Cys | Val | Glu | Asp | His | Leu | Gly | Tyr | Ala | Gly | Arg | Gly | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Trp | Leu | Ala | Leu | Ala | Asp | Asp | Arg | Pro | Val | Gly | Phe | Ile | Leu | Ala | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | His | Pro | Ser | Ser | Leu | Phe | Ile | Val | Glu | Leu | Ser | Val | His | Leu | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Trp | Gln | Gly | Arg | Gly | Leu | Gly | Arg | Gln | Leu | Ile | Ala | Arg | Ala | Val | Ala |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| His | Ala | Arg | Ser | Leu | Gly | Leu | Asn | Ser | Leu | Thr | Leu | Thr | Thr | Phe | Arg |
| | | | 115 | | | | 120 | | | | | | 125 | | |
| Asp | Val | Pro | Trp | Asn | Ala | Pro | Phe | Tyr | Arg | Arg | Leu | Gly | Phe | Glu | Met |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Thr | Thr | Leu | Thr | Pro | Glu | Leu | Arg | Gln | Lys | Arg | Glu | Glu | Glu | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | His | Gly | Leu | Ala | Tyr | Gly | Ser | Arg | Cys | Ala | Met | Arg | Leu | Pro | Leu |
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<211> 438

<212> PRT

<213> Enterobacter cloacae

<400> 7973

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| Asn | Gln | Asn | Arg | Thr | Ala | Gly | Leu | Arg | Ser | Met | Gly | Met | Lys | Gly | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Phe | Ala | Val | Ala | Leu | Asn | His | Gln | Ser | Gln | Arg | Ala | Ala | Trp | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Glu | Ala | Phe | Glu | Lys | Ala | Pro | Tyr | Asn | Ala | Pro | Pro | Lys | Thr | Ala | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Phe | Ile | Lys | Pro | His | Asn | Thr | Val | Ile | Arg | Ala | Gly | Glu | Pro | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Phe | Pro | Gln | Gly | Glu | Thr | Val | Leu | Ser | Gly | Ala | Thr | Val | Ala | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Val | Gly | Lys | Thr | Ala | Ser | Lys | Val | Arg | Val | Glu | Glu | Ala | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Tyr | Ile | Ala | Gly | Tyr | Ala | Leu | Ala | Asn | Glu | Ile | Ser | Leu | Pro | Glu | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Phe | Tyr | Arg | Pro | Ala | Ile | Lys | Ala | Lys | Cys | Arg | Asp | Gly | Phe | Cys |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Pro | Leu | Gly | Glu | Pro | Val | Ala | Val | Asp | Asn | Val | Asp | Asn | Leu | Thr | Ile |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ile | Thr | Glu | Ile | Asn | Gly | Arg | Glu | Ala | Asp | His | Trp | Asn | Thr | Ala | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | His | Arg | Asn | Ala | Ala | Glu | Leu | Leu | Ser | Ala | Leu | Ser | Glu | Phe | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Thr | Leu | Asn | Pro | Gly | Asp | Ala | Ile | Leu | Leu | Gly | Thr | Pro | Gln | Ser | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Glu | Ile | Arg | Pro | Gly | Asp | Arg | Val | Arg | Ile | Leu | Ala | Glu | Gly | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Pro | Pro | Leu | Glu | Asn | Pro | Val | Val | Val | Glu | Arg | Asp | Val | Thr | Ile | Ala |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ser | Arg | Thr | Pro | Pro | His | Ala | Thr | Leu | Phe | Ala | Leu | Gly | Leu | Asn | Tyr |

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 | | | | | 230 | | | | | 235 | | | | 240 |
| Ala | Asp | His | Ala | Ser | Glu | Leu | Asp | Phe | Lys | Pro | Pro | Thr | Glu | Pro |
| | | | | 245 | | | | | 250 | | | | | 255 |
| Val | Phe | Ile | Lys | Ala | Pro | Asn | Thr | Phe | Asn | Gly | Asp | Asn | Gln | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | |
| Val | Arg | Pro | Asn | Asn | Ile | Glu | Tyr | Met | His | Tyr | Glu | Ala | Glu | Leu |
| | | | 275 | | | | | 280 | | | | 285 | | Val |
| Val | Val | Ile | Gly | Lys | Thr | Ala | Arg | Lys | Val | Ser | Glu | Ala | Glu | Ala |
| | | | 290 | | | 295 | | | | | 300 | | | Met |
| Asp | Tyr | Val | Ala | Gly | Tyr | Thr | Val | Cys | Asn | Asp | Tyr | Ala | Ile | Arg |
| 305 | | | | | 310 | | | | | 315 | | | | 320 |
| Tyr | Leu | Glu | Asn | Tyr | Tyr | Arg | Pro | Asn | Leu | Arg | Val | Lys | Ser | Arg |
| | | | 325 | | | | | 330 | | | | | | 335 |
| Gly | Leu | Thr | Pro | Ile | Ser | Pro | Asn | Val | Val | Pro | Lys | Glu | Ala | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | Pro |
| Asp | Pro | His | Asn | Leu | Arg | Leu | Arg | Thr | Tyr | Val | Asn | Gly | Glu | Leu |
| | | | 355 | | | | 360 | | | | | 365 | | Arg |
| Gln | Glu | Gly | Thr | Thr | Ala | Asp | Leu | Ile | Phe | Ser | Ile | Pro | Phe | Leu |
| | | | 370 | | | 375 | | | | | 380 | | | Ile |
| Ala | Tyr | Leu | Ser | Asp | Phe | Met | Thr | Leu | Gln | Pro | Gly | Asp | Met | Ile |
| 385 | | | | | 390 | | | | | 395 | | | | Ala |
| Thr | Gly | Thr | Pro | Lys | Gly | Leu | Ser | Asp | Val | Val | Pro | Gly | Asp | Glu |
| | | | 405 | | | | | | 410 | | | | | Val |
| Val | Val | Glu | Val | Glu | Gly | Val | Gly | Arg | Leu | Val | Asn | Arg | Ile | Val |
| | | | 420 | | | | 425 | | | | | | 430 | Ser |
| Glu | Glu | Thr | Ala | Lys | | | | | | | | | | |
| | | | 435 | | | | | | | | | | | |

<210> 7974

<211> 273

<212> PRT

<213> Enterobacter cloacae

<400> 7974

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Asp | Ile | Ala | Met | Leu | Asp | Lys | His | Thr | His | Thr | Leu | Ile | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| His | Arg | Leu | His | Gln | Ala | Glu | Gln | Ser | Arg | Glu | Gln | Ile | Arg | Ala | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Leu | Glu | Tyr | Pro | Glu | Ile | Thr | Ile | Glu | Asp | Ala | Tyr | Ala | Val | Gln |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Arg | Glu | Trp | Val | Ser | Leu | Lys | Ile | Ala | Glu | Gly | Arg | Val | Leu | Lys | Gly |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| His | Lys | Ile | Gly | Leu | Thr | Ser | Lys | Ala | Met | Gln | Ala | Ser | Ser | Gln | Ile |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ser | Glu | Pro | Asp | Tyr | Gly | Ala | Leu | Leu | Asp | Asp | Met | Phe | Phe | His | Asp |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Gly | Ser | Asp | Ile | Pro | Val | Asp | Arg | Phe | Ile | Val | Pro | Arg | Ile | Glu | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Leu | Ala | Phe | Val | Leu | Ala | Lys | Pro | Leu | Arg | Gly | Pro | Asn | Cys | Thr |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Ile | Phe | Asp | Val | Tyr | Asn | Ala | Thr | Asp | Tyr | Val | Ile | Pro | Ala | Leu | Glu |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Leu | Ile | Asp | Ala | Arg | Cys | His | Asn | Val | Asp | Pro | Glu | Thr | Gln | Arg | Pro |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Arg | Lys | Val | Phe | Asp | Thr | Ile | Ser | Asp | Asn | Ala | Ala | Asn | Ala | Gly | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ile | Leu | Gly | Gly | Arg | Pro | Ile | Lys | Pro | Asp | Glu | Leu | Asp | Leu | Arg | Trp |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Ile | Ser | Ala | Leu | Leu | Tyr | Arg | Asn | Gly | Val | Ile | Glu | Glu | Thr | Gly | Val |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Ala | Ala | Gly | Val | Leu | Asn | His | Pro | Ala | Asn | Gly | Val | Ala | Trp | Leu | Ala |

| | | | | |
|---|-----|-----|-----|-----|
| 210 | | 215 | | 220 |
| Asn Lys Leu Ala Pro Tyr Asp Val Gln Leu Glu Pro Gly Gln Ile Ile | | | | |
| 225 | | 230 | | 235 |
| Leu Gly Gly Ser Phe Thr Arg Pro Val Ala Ala Ser Arg Gly Asp Thr | | | | |
| | 245 | | 250 | 255 |
| Phe His Val Asp Tyr Gly Asn Met Gly Ser Ile Ser Cys Arg Phe Val | | | | |
| | 260 | | 265 | 270 |

<210> 7975

<211> 180

<212> PRT

<213> Enterobacter cloacae

<400> 7975

| | | | | |
|---|-----|-----|-----|--|
| Ala Ala Glu Ile Thr Gln Arg Glu Val Ser Met Gln Ser Glu Glu Arg | | | | |
| 1 | 5 | 10 | 15 | |
| Leu Arg Phe Arg Asp Ala Met Ala Ser Leu Ser Ala Ala Val Asn Val | | | | |
| | 20 | 25 | 30 | |
| Val Thr Thr Glu Gly Asp Ala Gly Arg Cys Gly Ile Thr Ala Thr Ala | | | | |
| | 35 | 40 | 45 | |
| Val Cys Ser Val Thr Asp Thr Pro Pro Ser Val Met Val Cys Ile Asn | | | | |
| | 50 | 55 | 60 | |
| Ala Asn Ser Ala Met Asn Pro Val Phe Gln Gly Asn Gly Lys Leu Cys | | | | |
| 65 | 70 | 75 | 80 | |
| Val Asn Val Leu Asn His Glu Gln Glu Ile Met Ala Arg His Phe Ala | | | | |
| | 85 | 90 | 95 | |
| Gly Met Thr Gly Met Ala Met Glu Glu Arg Phe Ala Leu Ser Cys Trp | | | | |
| | 100 | 105 | 110 | |
| Gln Lys Gly Pro Leu Ala Gln Pro Val Leu Lys Gly Ala Leu Ala Ser | | | | |
| | 115 | 120 | 125 | |
| Leu Glu Gly Glu Ile Thr Gln Val Gln Thr Ile Gly Thr His Leu Val | | | | |
| | 130 | 135 | 140 | |
| Tyr Leu Val Glu Ile Lys Asn Ile Ile Leu Ser Ser Glu Gly His Gly | | | | |
| 145 | 150 | 155 | 160 | |
| Leu Ile Tyr Phe Lys Arg Arg Phe His Pro Val Met Met Glu Met Glu | | | | |
| | 165 | 170 | 175 | |
| Ala Ala Val | | | | |
| | 180 | | | |

<210> 7976

<211> 773

<212> PRT

<213> Enterobacter cloacae

<400> 7976

| | | | | |
|---|-----|-----|-----|--|
| Pro Leu Thr Leu Ala Phe Asp Arg Ser Arg Ile Ala Phe Asn His Ser | | | | |
| 1 | 5 | 10 | 15 | |
| Pro Ile Tyr Arg Ala Leu Tyr Ala Arg Gly Ser Gly Thr Ile Ala Pro | | | | |
| | 20 | 25 | 30 | |
| Ala Leu Ile Asn Thr Ser Ser Gln Arg Thr Leu Thr Leu Phe Ser Leu | | | | |
| | 35 | 40 | 45 | |
| His Lys Lys Pro Gly Leu Thr Met Asp Thr Lys Lys Leu Leu Lys His | | | | |
| | 50 | 55 | 60 | |
| Val Pro Trp Ala Ile Leu Gly Ile Ile Gly Ala Phe Cys Leu Ala Val | | | | |
| 65 | 70 | 75 | 80 | |
| Val Ala Leu Arg Arg Gly Glu His Val Ser Ala Leu Trp Ile Val Val | | | | |
| | 85 | 90 | 95 | |
| Ala Ser Val Ser Val Tyr Leu Val Ala Tyr Arg Tyr Tyr Ser Leu Tyr | | | | |
| | 100 | 105 | 110 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Ala | Gln | Lys | Val | Met | Lys | Leu | Asp | Pro | Thr | Arg | Ala | Thr | Pro | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Ile | Asn | Asn | Asp | Gly | Leu | Asn | Tyr | Val | Pro | Thr | Asn | Arg | Tyr | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Leu | Phe | Gly | His | His | Phe | Ala | Ala | Ile | Ala | Gly | Ala | Gly | Pro | Leu | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Pro | Val | Leu | Ala | Ala | Gln | Met | Gly | Tyr | Leu | Pro | Gly | Thr | Leu | Trp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Leu | Ala | Gly | Val | Val | Leu | Ala | Gly | Ala | Val | Gln | Asp | Phe | Met | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Phe | Ile | Ser | Ser | Arg | Arg | Asn | Gly | Ser | Ser | Leu | Gly | Glu | Met | Ile |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Lys | Glu | Glu | Met | Gly | Arg | Val | Pro | Gly | Thr | Ile | Ala | Leu | Phe | Gly | Cys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Phe | Leu | Ile | Met | Ile | Ile | Ile | Leu | Ala | Val | Leu | Ala | Leu | Ile | Val | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Ala | Leu | Ala | Glu | Ser | Pro | Trp | Gly | Val | Phe | Thr | Val | Cys | Ser | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Pro | Ile | Ala | Leu | Phe | Met | Gly | Ile | Tyr | Met | Arg | Phe | Leu | Arg | Pro |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Arg | Val | Gly | Glu | Val | Ser | Val | Ile | Gly | Ile | Val | Leu | Leu | Val | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Ile | Tyr | Phe | Gly | Gly | Val | Ile | Ala | His | Asp | Pro | Tyr | Trp | Gly | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Leu | Thr | Phe | Lys | Asp | Thr | Thr | Ile | Thr | Phe | Ala | Leu | Ile | Gly | Tyr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Phe | Ile | Ser | Ala | Leu | Leu | Pro | Val | Trp | Leu | Ile | Leu | Ala | Pro | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Asp | Tyr | Leu | Ala | Thr | Phe | Leu | Lys | Ile | Gly | Val | Ile | Val | Gly | Leu | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Gly | Ile | Val | Ile | Ile | Asn | Pro | Glu | Leu | Lys | Met | Pro | Ala | Val | Thr |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gln | Tyr | Ile | Asp | Gly | Thr | Gly | Pro | Leu | Trp | Lys | Gly | Ala | Leu | Phe | Pro |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Phe | Leu | Phe | Ile | Thr | Ile | Ala | Cys | Gly | Ala | Val | Ser | Gly | Phe | His | Ala |
| 385 | | | | | 390 | | | | 395 | | | | | | 400 |
| Leu | Ile | Ala | Ser | Gly | Thr | Thr | Pro | Lys | Leu | Met | Ala | Asn | Glu | Thr | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Arg | Phe | Ile | Gly | Tyr | Gly | Ala | Met | Leu | Met | Glu | Ser | Phe | Val | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Met | Ala | Leu | Val | Ala | Ala | Ser | Ile | Ile | Glu | Pro | Gly | Leu | Tyr | Phe |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Met | Asn | Thr | Pro | Pro | Ala | Gly | Leu | Gly | Ile | Thr | Met | Pro | Asn | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| His | Glu | Met | Gly | Gly | Glu | Asn | Thr | Ala | Leu | Ile | Leu | Ala | Gln | Leu | Lys |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Asp | Ala | Ser | Ala | His | Ala | Ala | Ala | Thr | Val | Ser | Ser | Trp | Gly | Phe | Val |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ile | Ser | Pro | Glu | Gln | Ile | Met | Gln | Thr | Ala | Lys | Asp | Ile | Gly | Glu | Pro |
| | | 500 | | | | | | 505 | | | | | 510 | | |
| Ser | Val | Leu | Asn | Arg | Ala | Gly | Gly | Ala | Pro | Thr | Leu | Ala | Val | Gly | Ile |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ala | His | Val | Phe | His | Lys | Val | Leu | Pro | Trp | Ala | Asp | Met | Gly | Phe | Trp |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Tyr | His | Phe | Gly | Ile | Leu | Phe | Glu | Ala | Leu | Phe | Ile | Leu | Thr | Ala | Leu |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Asp | Ala | Gly | Thr | Arg | Ala | Gly | Arg | Phe | Met | Leu | Gln | Asp | Leu | Leu | Gly |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Asn | Phe | Val | Pro | Phe | Leu | Lys | Lys | Thr | Asp | Ser | Leu | Val | Ala | Gly | Val |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Leu | Gly | Thr | Ala | Gly | Cys | Val | Gly | Leu | Trp | Gly | Tyr | Leu | Leu | Tyr | Gln |


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<210> 7977
<211> 233
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|-----|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|
| Leu 1 | Thr | Leu | Asn | Ser 5 | Ser | Ala | Ser | Val | Arg 10 | Lys | Arg | Ala | Thr | Ala 15 | Glu |
| Val | Glu | Lys | Ala 20 | Ala | Ser | Ala | Ala | Ala 25 | Lys | Gly | Glu | Thr | Met 30 | Thr | Pro |
| Ile | Ala | Val 35 | Thr | Leu | Leu | Thr | Gly 40 | Phe | Leu | Gly | Ala | Gly 45 | Lys | Thr | Thr |
| Leu | Leu 50 | Arg | His | Ile | Leu | Asn 55 | Glu | Gln | His | Gly | Phe 60 | Lys | Ile | Ala | Val |
| Ile 65 | Glu | Asn | Glu | Phe 70 | Gly | Glu | Val | Ser | Val | Asp 75 | Asp | Gln | Leu | Ile | Gly 80 |
| Asp | Arg | Ala | Thr 85 | Gln | Ile | Lys | Thr | Leu | Thr 90 | Asn | Gly | Cys | Ile | Cys 95 | Cys |
| Thr | Arg | Ser | Asn 100 | Glu | Leu | Glu | Asp | Ala 105 | Leu | Leu | Asp | Leu | Leu 110 | Asp | Ser |
| Arg | Asp | Arg 115 | Gly | Asp | Ile | Val | Phe 120 | Asp | Arg | Leu | Val | Ile 125 | Glu | Cys | Thr |
| Gly | Met 130 | Ala | Asp | Pro | Gly | Pro 135 | Ile | Ile | Gln | Thr | Phe 140 | Phe | Ser | His | Glu |
| Ile 145 | Ile | Cys | Gln | Arg 150 | Tyr | Leu | Leu | Asp | Gly | Val 155 | Ile | Ala | Leu | Val | Asp 160 |
| Ala | Val | His | Ala 165 | Asp | Glu | Gln | Met | Asn | Gln 170 | Phe | Thr | Ile | Ala 175 | Gln | Ser |
| Gln | Val | Gly 180 | Tyr | Ala | Asp | Arg | Ile 185 | Leu | Leu | Thr | Lys | Thr 190 | Asp | Val | Ala |
| Gly | Glu | Ser 195 | Glu | Lys | Leu | Arg | Glu 200 | Arg | Leu | Thr | Arg | Ile 205 | Asn | Ser | Arg |
| Ala | Pro 210 | Ile | Tyr | Thr | Val | Thr 215 | His | Gly | Asp | Ile | Asp 220 | Leu | Ala | Gln | Leu |
| Phe 225 | Asn | Thr | Asn | Gly 230 | Phe | Met | Leu | | | | | | | | |

<210> 7978
 <211> 196
 <212> PRT
 <213> Enterobacter cloacae

<400> 7978

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Tyr Val Gln Arg Pro His Gln His Arg Ser Gly Ala Leu Gly Asp Ser
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Gln Pro Ala Asp Ala Gly Asp Leu Tyr Arg Gly Gly Asn Gly His Asp
      20      25      30
Thr Leu Gly Val Thr Arg Met Gly Val Ile Asp Phe Leu Leu Ala Leu
      35      40      45
Ala Gln Asp Met Leu Leu Ala Leu Pro Ala Val Gly Phe Ala Met
      50      55      60
Val Phe Asn Val Pro Gln Arg Ala Leu Pro Trp Cys Ala Leu Leu Gly
65      70      75      80
Ala Ile Gly His Gly Ser Arg Met Ile Met Met Thr Ala Gly Phe Asn
      85      90      95
Ile Glu Trp Ser Thr Phe Ile Ala Ser Met Leu Val Gly Ser Ile Gly
      100     105     110
Ile Gln Trp Ser Arg Trp Tyr Leu Ala His Pro Lys Val Phe Thr Val
      115     120     125
Ala Ala Val Ile Pro Met Phe Pro Gly Ile Ser Ala Tyr Thr Ala Met
      130     135     140
Ile Ser Ala Val Lys Ile Ser His Phe Gly Tyr Ser Glu Pro Gln Met
145     150     155     160
Ile Leu Leu Leu Ser Asn Phe Leu Lys Ala Ser Ser Ile Val Gly Ala
      165     170     175
Leu Ser Ile Gly Leu Ser Ile Pro Gly Leu Trp Leu Tyr Arg Lys Arg
      180     185     190
Pro Arg Val
      195

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<210> 7979
 <211> 185
 <212> PRT
 <213> Enterobacter cloacae

<400> 7979

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Glu Ser Val Met Ser Ser Arg Ile Leu Thr Thr Ser Ile Ala Gly Ile
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Asp Ala Phe Met Arg Asp Pro Arg Gly Val Leu Thr His Ala Glu Gly
      20      25      30
Gly Thr Leu Ala Val Phe Ala Asp Asn Ala Pro Ala Phe Tyr Ala Val
      35      40      45
Thr Pro Glu Arg Leu Ala Gln Leu Leu Glu Ile Glu Ala Lys Leu Ser
      50      55      60
Arg Pro Ala Ser Asp Val Met Leu Asp Asn Gln Phe Phe Asp Glu Pro
65      70      75      80
Ala Ser Ala Pro Val Ala Val Pro Met Gly Lys Phe Pro Met Tyr Ala
      85      90      95
Gly Trp Gln Pro Asp Ala Asp Phe Gln Arg Gln Ala Ala Leu Trp Gly
      100     105     110
Ile Ala Leu Ala Gln Pro Ala Thr Pro Glu Glu Leu Ala Ala Phe Thr
      115     120     125
Ala Tyr Trp Gln Ala Glu Gly Lys Val Phe His His Val Gln Trp Gln
      130     135     140
Gln Lys Phe Ala Arg Ser Leu Gln Ile Asn Arg Ala Ser Asn Asn Gly
145     150     155     160
Gln Pro Lys Arg Asp Ile Asn Ala Phe Ser Glu Pro Asp Lys Lys Ile
      165     170     175

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Pro Asp Gly Phe Arg Gly Ala Lys
180 185

<210> 7980

<211> 778

<212> PRT

<213> Enterobacter cloacae

<400> 7980

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Ile | Ser | Arg | Leu | Ser | Val | Arg | His | Asp | Glu | Asp | Leu | Leu | Leu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Leu | Met | Ser | Leu | Val | Leu | Phe | Leu | Ala | Ser | Ile | Gly | Val | Tyr | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Trp | Lys | Ala | Gly | Arg | His | Thr | Trp | Trp | Phe | Val | Ala | Thr | Leu | Val | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Gly | Ile | Phe | Ile | Val | Leu | Asn | Ile | Thr | Leu | Tyr | Ala | Ser | Asp | Tyr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Phe | Thr | Gly | Asp | Gly | Ile | Asn | Asp | Ala | Val | Leu | Tyr | Thr | Leu | Thr | Asn |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Ser | Leu | Thr | Gly | Ala | Gly | Val | Gly | Lys | Tyr | Ile | Leu | Pro | Gly | Leu | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Val | Val | Ala | Leu | Val | Gly | Ile | Phe | Ala | Ala | Leu | Ala | Trp | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Arg | Arg | Arg | His | Arg | Pro | His | His | His | Gly | Tyr | Ser | Leu | Leu | Ala |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Leu | Cys | Leu | Ala | Leu | Ala | Ser | Val | Asp | Ala | Ser | Pro | Ala | Phe | His | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Thr | Glu | Leu | Val | Lys | Ser | Gln | Ser | Arg | Asp | Gly | Asp | Pro | Asp | Phe |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ala | Tyr | Tyr | Lys | Glu | Pro | Ser | Lys | Lys | Ile | Asp | Asn | Pro | Arg | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asn | Leu | Val | Tyr | Ile | Tyr | Gly | Glu | Ser | Leu | Glu | Arg | Thr | Tyr | Phe | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Asp | Ala | Phe | Pro | Asn | Leu | Thr | Pro | Glu | Leu | Gly | Ala | Leu | Lys | Asn |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | Gly | Leu | Asp | Phe | Ser | His | Thr | Met | Gln | Leu | Pro | Gly | Thr | Asp | Tyr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Thr | Ile | Ala | Gly | Met | Val | Ala | Ser | Gln | Cys | Gly | Ile | Pro | Leu | Phe | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Phe | Glu | Gly | Asn | Ala | Ser | Ala | Ser | Met | Ser | Ser | Phe | Phe | Pro | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asn | Ile | Cys | Leu | Gly | Asp | Ile | Leu | Lys | Asn | Ser | Gly | Tyr | Glu | Asn | Tyr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Met | Gln | Gly | Ala | Asn | Leu | Arg | Phe | Ala | Gly | Lys | Asp | Val | Phe | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Lys | Ser | His | Gly | Phe | Asp | His | Leu | Tyr | Gly | Ser | Glu | Glu | Leu | Lys | Thr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Thr | Val | Ala | Asp | Pro | Ala | Tyr | Arg | Asn | Asp | Trp | Gly | Phe | Tyr | Asp | Asp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Val | Leu | Asp | Glu | Thr | Trp | Lys | Lys | Phe | Glu | Glu | Leu | Ser | Arg | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Lys | Arg | Phe | Ser | Leu | Phe | Ala | Leu | Thr | Val | Asp | Thr | His | His | Pro |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Gly | Phe | Val | Ser | Arg | Thr | Cys | Lys | Arg | Gln | Gly | Tyr | Asp | Ile | Asp |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Gly | Lys | Asn | Asn | Lys | Ser | Phe | Ser | Ala | Val | Thr | Cys | Ser | Gln | Glu | His |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ile | Ala | Ala | Leu | Ile | Glu | Lys | Ile | Lys | Ala | Ser | Pro | Tyr | Phe | Lys | Asn |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Thr | Val | Ile | Val | Val | Ser | Ser | Asp | His | Leu | Ala | Met | Lys | Asn | Ser | Ala |
| | | | | 405 | | | | | 410 | | | | | 415 | |

3847 7980 778 PRT Enterobacter cloacae

Trp Asp Glu Leu Asn Lys Leu Asp Arg Ser Asn Leu Phe Phe Val Leu
 420 425 430
 Arg Gly Asp Lys Pro Gln Gln Glu Ile Ile Ala Ala Lys Arg Asn Ser
 435 440 445
 Met Asp Asn Gly Ala Thr Val Leu Asp Ile Leu Gly Gly Asp Asn Phe
 450 455 460
 Ile Gly Leu Ser Arg Ser Thr Leu Ser Gly Gln Ser Leu Ser Glu Ile
 465 470 475 480
 Phe Leu Asn Met Lys Glu Lys Ile Leu Ala Trp Lys Pro Asp Ile Ile
 485 490 495
 Arg Leu Trp Asn Phe Pro Lys Glu Ile Lys Asp Phe Thr Ile Asp Gln
 500 505 510
 Asp Lys Lys Met Ile Ala Phe Ser Gly Ser His Phe Arg Leu Pro Leu
 515 520 525
 Leu Leu Arg Val Ser Asp Asn Arg Val Glu Pro Leu Pro Glu Ser Glu
 530 535 540
 Tyr Ser Ala Pro Leu Arg Phe Gln Leu Ala Glu Phe Ala Pro Arg Asp
 545 550 555 560
 Asn Phe Val Trp Val Asp Lys Cys Tyr Lys Met Gly Gln Leu Trp Ser
 565 570 575
 Gln Gln Leu Ser Leu Ser Thr Asp Trp Cys Val Ser Gln Gly Gln Leu
 580 585 590
 Gly Gly Glu Gln Ala Val Gln His Val Asp Lys Pro Gln Trp Gln Gly
 595 600 605
 Lys Thr Ala Phe Lys Asp Thr Val Ile Asp Thr Ala Arg Tyr Gln Arg
 610 615 620
 Asn Val Asp Leu Leu Lys Ile Val Asp Asn Asp Ile Arg Tyr Lys Ala
 625 630 635 640
 Asp Ser Phe Ile Phe Asn Val Ala Gly Ala Pro Glu Glu Val Lys Gln
 645 650 655
 Phe Ser Gly Ile Ser Arg Pro Glu Ser Trp Gly Arg Trp Ser Asn Ala
 660 665 670
 Gln Leu Gly Asp Glu Val Lys Ile Glu Tyr Thr His Pro Leu Pro Glu
 675 680 685
 Lys Phe Asp Leu Val Ile Thr Ala Arg Ala Phe Gly Pro Asn Ala Asn
 690 695 700
 Arg Pro Ile Pro Val Arg Val Gly Asp Lys Glu Gln Thr Leu Thr Leu
 705 710 715 720
 Ser Asn Asp Val Thr Ser Thr Leu His Phe Asp Asn Pro Thr Arg
 725 730 735
 Ser Asn Thr Leu Val Ile Val Pro Pro Asp Pro Gln Ser Thr Asn Glu
 740 745 750
 Gly Asn Ile Leu Gly His Ala Pro Arg Lys Leu Gly Ile Gly Met Val
 755 760 765
 Glu Ile Lys Ile Val Ser Ser Ala Gly
 770 775

<210> 7981

<211> 380

<212> PRT

<213> Enterobacter cloacae

<400> 7981

Gly Arg Ser Gly Arg Pro Ala Pro Gly Glu Arg Arg Gly Val Trp Pro
 1 5 10 15
 Gly Val Val His Leu Asp Pro Gly Arg Gln Gln Ser Ala Ala Ser Gly
 20 25 30
 Ala Gln His Arg Ser Gly His Gly Val Arg Gln His Pro Glu Arg Ala
 35 40 45
 Arg Pro Ala Pro Ala Val Trp Arg Arg Glu Gly Leu Arg His Arg Ala
 50 55 60

Arg Arg Arg Arg Val Gln Leu Arg Gly Ile Arg Gly Asp Glu Glu Arg
 65 70 75 80
 Val His Leu His Gly Arg Pro Ser Asp Ser Lys Val Gly Asp Leu Lys
 85 90 95
 Met Gly Lys Leu Ala Leu Ala Ala Lys Ile Thr His Val Pro Ser Met
 100 105 110
 Tyr Leu Ser Glu Leu Pro Gly Lys Asn His Gly Cys Arg Gln Gly Ala
 115 120 125
 Ile Asp Gly His Lys Glu Ile Ser Lys Arg Cys Arg Glu Leu Gly Val
 130 135 140
 Asp Thr Ile Ile Val Phe Asp Thr His Trp Leu Val Asn Ser Ala Tyr
 145 150 155 160
 His Ile Asn Cys Ala Asp His Phe Ser Gly Val Tyr Thr Ser Asn Glu
 165 170 175
 Leu Pro His Phe Ile Arg Asp Met Thr Tyr Asp Tyr Asp Gly Asn Pro
 180 185 190
 Glu Leu Gly Gln Leu Ile Ala Asp Glu Ala Val Lys Leu Gly Val Arg
 195 200 205
 Ala Lys Ala His Asn Ile Pro Ser Leu Lys Leu Glu Tyr Gly Thr Leu
 210 215 220
 Val Pro Met Arg Tyr Met Asn Ala Asp Lys His Phe Lys Val Val Ser
 225 230 235 240
 Ile Ser Ala Phe Cys Thr Val His Asp Phe Ala Asp Ser Arg Arg Leu
 245 250 255
 Gly Glu Ala Ile Ile Ser Ala Ile Glu Lys Tyr Asp Gly Thr Val Ala
 260 265 270
 Val Leu Ala Ser Gly Ser Leu Ser His Arg Phe Ile Asp Asp Gln Arg
 275 280 285
 Ala Glu Glu Gly Met Asn Ser Tyr Thr Arg Glu Phe Asp Arg Gln Met
 290 295 300
 Asp Glu Arg Val Val Lys Leu Trp Arg Glu Gly Gln Phe Lys Glu Phe
 305 310 315 320
 Cys Ser Met Leu Pro Glu Tyr Ala Asp Tyr Cys Tyr Gly Glu Gly Asn
 325 330 335
 Met His Asp Thr Val Met Leu Leu Gly Met Leu Gly Trp Asp Lys Tyr
 340 345 350
 Asp Gly Lys Val Glu Phe Leu Thr Glu Leu Phe Ala Ser Ser Gly Thr
 355 360 365
 Gly Gln Val Asn Ala Val Phe Pro Leu Pro Ala
 370 375 380

<210> 7982

<211> 130

<212> PRT

<213> Enterobacter cloacae

<400> 7982

Gly Val Val Met Pro His Phe Ile Ala Glu Cys Thr Asn Asn Ile Arg
 1 5 10 15
 Glu Gln Ala Asp Leu Pro Gly Leu Phe Ala Lys Val Asn Glu Ala Leu
 20 25 30
 Ala Ala Thr Gly Ile Phe Pro Leu Gly Gly Ile Arg Ser Arg Ala His
 35 40 45
 Trp Leu Asp Thr Trp Gln Met Ala Asp Gly Lys His Asp Tyr Ala Phe
 50 55 60
 Val His Met Thr Leu Lys Ile Gly Ala Gly Arg Ser Leu Glu Ser Arg
 65 70 75 80
 Glu Glu Val Gly Glu Met Leu Phe Ala Leu Ile Lys Thr His Phe Ala
 85 90 95
 Glu Leu Met Ala Gly Arg Tyr Leu Ala Leu Ser Phe Glu Leu Asp Glu
 100 105 110

Leu His Pro Thr Leu Asn Tyr Lys Gln Asn Asn Val His Ala Leu Phe
 115 120 125
 Lys
 130

<210> 7983

<211> 339

<212> PRT

<213> Enterobacter cloacae

<400> 7983

Ser Lys Arg Pro Gly Ser Pro Gln Ala Cys Leu Thr Thr Arg Arg Thr
 1 5 10 15
 Ala Trp Arg Gly Trp Arg Thr Asn Ser Arg His Thr Thr Cys Ser Leu
 20 25 30
 Ser Gln Asp Lys Ser Ser Ser Ala Ala Arg Leu Pro Ala Arg Leu Pro
 35 40 45
 Pro Ala Glu Ala Thr Pro Ser Thr Ser Thr Thr Ala Thr Trp Ala Pro
 50 55 60
 Ser Ala Ala Ala Leu Cys Lys Glu Met Thr Met Gln Asn Ala Phe Lys
 65 70 75 80
 Ala Ala Leu Lys Ala Gly Arg Pro Gln Ile Gly Leu Trp Leu Gly Leu
 85 90 95
 Thr Ser Ser Tyr Ser Ala Glu Leu Leu Ala Gly Ala Gly Phe Asp Trp
 100 105 110
 Leu Leu Ile Asp Gly Glu His Ala Pro Asn Ser Val Gln Thr Ile Leu
 115 120 125
 Thr Gln Leu Gln Ala Ile Ala Pro Tyr Pro Ser Gln Pro Val Val Arg
 130 135 140
 Pro Ser Trp Asn Asp Pro Val Gln Ile Lys Gln Leu Leu Asp Val Gly
 145 150 155 160
 Ala Gln Thr Leu Leu Val Pro Met Val Gln Asn Ala Asp Glu Ala Arg
 165 170 175
 Leu Ala Val Ser Ala Thr Arg Tyr Pro Pro Ala Gly Ile Arg Gly Val
 180 185 190
 Gly Ser Ala Leu Ala Arg Ala Ser Arg Trp Asn Arg Ile Pro Glu Tyr
 195 200 205
 Leu His Gln Ala Asn Asp Ala Met Cys Val Leu Val Gln Ile Glu Thr
 210 215 220
 Arg Glu Ala Leu Lys Asn Leu Pro Gln Ile Leu Asp Val Glu Gly Val
 225 230 235 240
 Asp Gly Val Phe Ile Gly Pro Ala Asp Leu Ser Ala Asp Met Gly Phe
 245 250 255
 Ala Gly Asn Pro Gln His Pro Glu Val Gln Ala Ala Ile Glu Gln Ala
 260 265 270
 Ile Ala Gln Ile Leu Ser Ala Gly Lys Ala Pro Gly Ile Leu Met Ala
 275 280 285
 Asn Glu Gln Leu Ala Lys Arg Tyr Leu Glu Leu Gly Ala Leu Phe Val
 290 295 300
 Ala Val Gly Val Asp Thr Thr Leu Leu Ala Arg Ser Ala Glu Ala Leu
 305 310 315 320
 Ala Ala Arg Phe Thr Asp Val Thr Thr Ala Val Asp Asn Asn Lys Ser
 325 330 335
 Val Tyr

<210> 7984

<211> 455

<212> PRT

<213> Enterobacter cloacae

<400> 7984

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Tyr | Asp | Val | Glu | Arg | Asn | Met | Thr | Thr | Ser | Thr | Leu | His | Asn | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Val | Glu | His | Arg | Val | Ile | Asn | Lys | Leu | Phe | Arg | Arg | Leu | Ile | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Leu | Phe | Ile | Leu | Phe | Val | Phe | Ser | Phe | Leu | Asp | Arg | Ile | Asn | Ile |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Gly | Phe | Ala | Gly | Leu | Thr | Met | Gly | Lys | Asp | Leu | Gly | Leu | Thr | Ser | Thr |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Met | Phe | Gly | Leu | Ala | Ala | Thr | Leu | Phe | Tyr | Val | Thr | Tyr | Val | Leu | Cys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Ile | Pro | Ser | Asn | Ile | Met | Leu | Ala | Lys | Ile | Gly | Ala | Arg | Arg | Trp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Ala | Gly | Ile | Met | Val | Val | Trp | Gly | Ile | Ala | Ser | Thr | Cys | Thr | Met |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ala | Thr | Ser | Pro | Glu | Thr | Leu | Tyr | Val | Leu | Arg | Met | Leu | Val | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Ala | Glu | Ala | Gly | Phe | Leu | Pro | Gly | Ile | Leu | Val | Tyr | Leu | Thr | Trp |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Trp | Phe | Pro | Ala | Tyr | His | Arg | Ala | Arg | Ala | Asn | Ala | Leu | Phe | Met | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Met | Pro | Val | Thr | Met | Met | Leu | Gly | Ser | Ile | Leu | Ser | Gly | Tyr | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ala | Met | Asp | Gly | Leu | Trp | Asn | Leu | Lys | Gly | Trp | Gln | Trp | Leu | Phe |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Leu | Leu | Glu | Gly | Leu | Pro | Ser | Val | Val | Leu | Gly | Val | Val | Thr | Trp | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Leu | Asn | Asp | Thr | Pro | Asp | Gln | Ala | Thr | Trp | Leu | Asp | Asp | Asp | Glu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Lys | Gln | Ala | Leu | Lys | Thr | Met | Ile | Ala | Arg | Glu | Gln | Glu | Leu | Ala | Ile |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | His | Ala | Ala | Thr | Pro | Arg | Ser | Thr | Leu | Arg | Glu | Val | Leu | Thr | Pro |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Val | Leu | Leu | Tyr | Thr | Leu | Ala | Tyr | Phe | Cys | Leu | Thr | Asn | Thr | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Ala | Ile | Asn | Ile | Trp | Thr | Pro | Gln | Ile | Leu | Gln | Ser | Phe | Asn | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Ser | Ser | Asn | Ile | Val | Ile | Gly | Leu | Leu | Ala | Ala | Ile | Pro | Gln | Phe |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Cys | Thr | Ile | Leu | Gly | Met | Ile | Trp | Trp | Ser | Arg | Arg | Ser | Asp | Arg | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Lys | Glu | Arg | Lys | Lys | His | Thr | Ile | Leu | Pro | Tyr | Leu | Phe | Ala | Ala | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Gly | Trp | Met | Leu | Ala | Ser | Ala | Thr | Asp | His | Ser | Leu | Ile | Gln | Leu | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gly | Ile | Ile | Met | Ala | Ser | Thr | Gly | Ser | Phe | Thr | Ala | Met | Ala | Ile | Phe |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Trp | Thr | Thr | Pro | Asp | Gln | Val | Ile | Ser | Leu | Gln | Ser | Arg | Ala | Val | Ala |
| | | 370 | | | | 375 | | | | | | 380 | | | |
| Leu | Ala | Val | Ile | Asn | Ala | Ile | Gly | Asn | Val | Gly | Ser | Ala | Val | Ser | Pro |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Leu | Leu | Ile | Gly | Ile | Leu | Arg | Asp | Ala | Thr | Gly | Ser | Phe | Ser | Ser | Gly |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Leu | Trp | Phe | Val | Ala | Gly | Leu | Leu | Val | Val | Gly | Ala | Leu | Val | Leu | Thr |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Arg | Ile | Pro | Met | Thr | Arg | Arg | Glu | Ser | Leu | Glu | Arg | Glu | Pro | Asp | Ile |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Ala | Gln | Lys | Ile | His | | | | | | | | | | |
| | | 450 | | | | 455 | | | | | | | | | |

<210> 7985

<211> 314

<212> PRT

<213> Enterobacter cloacae

<400> 7985

Gly Ala Ala Met Cys Gln Ser Pro Ile Thr Asn Ile Asp Ile Ser Lys
 1 5 10 15
 Glu Tyr Asp Glu Ser Leu Gly Thr Asp Asp Val His Tyr Gln Ser Phe
 20 25 30
 Ala Arg Met Ala Ala Phe Phe Gly Arg Asp Met Gln Ala His Arg His
 35 40 45
 Asp Gln Tyr Phe Gln Met His Phe Leu Asp Thr Gly Gln Ile Glu Leu
 50 55 60
 Gln Leu Asp Asp His Arg Tyr Ser Val Gln Ala Pro Leu Phe Val Leu
 65 70 75 80
 Thr Pro Pro Ser Val Pro His Ala Phe Ile Thr Glu Ser Asp Ser Asp
 85 90 95
 Gly His Val Leu Thr Val Arg Glu Asp Leu Ile Trp Pro Leu Leu Glu
 100 105 110
 Val Leu Tyr Pro Gly Thr Arg Glu Ala Phe Gly Leu Pro Gly Ile Cys
 115 120 125
 Leu Ser Leu Ala Asp Lys Pro Asp Glu Leu Ala Ala Leu Lys His Tyr
 130 135 140
 Trp Gln Leu Ile Ala Arg Glu Ser Thr Glu Gln Leu Pro Gly Arg Glu
 145 150 155 160
 His Thr Leu Val Leu Leu Ala Gln Ala Val Phe Thr Leu Leu Leu Arg
 165 170 175
 Asn Ala Lys Leu Asp Asp His Ala Ser Gly Gly Met Arg Gly Glu Leu
 180 185 190
 Lys Leu Phe Gln Arg Phe Asn Gln Leu Thr Asp Ala His Tyr His Glu
 195 200 205
 His Trp Thr Val Pro Glu Tyr Ala Ser Glu Leu His Leu Thr Glu Ser
 210 215 220
 Arg Leu Thr Asp Ile Cys Arg Arg Phe Ala Asn Arg Ser Pro Lys Arg
 225 230 235 240
 Leu Ile Phe Asp Arg Gln Leu Arg Glu Ala Arg Arg Leu Leu Leu Phe
 245 250 255
 Ser Asp Ser Thr Val Ser Glu Ile Ala Trp Gln Leu Gly Phe Lys Asp
 260 265 270
 Pro Ala Tyr Phe Ala Arg Phe Phe Asn Arg Leu Thr Gly Cys Ser Pro
 275 280 285
 Ser Ala Tyr Arg Ala Gln Lys Val Pro Val Ser Pro Val Pro Leu Thr
 290 295 300
 Pro Ala Leu Ser Gln Met Glu Arg Glu
 305 310

<210> 7986

<211> 562

<212> PRT

<213> Enterobacter cloacae

<400> 7986

Ser Leu Ala Lys Ser Thr Cys Arg Cys Pro Asn Arg Pro Phe Thr Phe
 1 5 10 15
 Arg Pro Ser His Ala Ser Ile Lys Gln Gln Lys Gln Asn Ile Asn Leu
 20 25 30
 Thr Thr Ile Phe Arg Tyr Glu Val Pro Met Lys Pro Glu Asp Phe Arg
 35 40 45
 Ala Asp Ala Lys Arg Pro Leu Thr Gly Glu Glu Tyr Leu Asn Ser Leu
 50 55 60
 Gln Asp Gly Arg Glu Ile Tyr Ile Tyr Gly Glu Arg Val Lys Asp Val

| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| 65 | | | | | 70 | | | | | 75 | | | | 80 |
| Thr | Thr | His | Pro | Ala | Phe | Arg | Asn | Ala | Ala | Ala | Ser | Ile | Ala | Gln Met |
| | | | | 85 | | | | | 90 | | | | | 95 |
| Tyr | Asp | Ala | Leu | His | Lys | Pro | Asp | Met | Gln | Asp | Thr | Leu | Cys | Trp Gly |
| | | | 100 | | | | | 105 | | | | | 110 | |
| Thr | Asp | Thr | Gly | Ser | Gly | Gly | Tyr | Thr | His | Lys | Phe | Phe | Arg | Val Ala |
| | | 115 | | | | | 120 | | | | | 125 | | |
| Lys | Ser | Ala | Asp | Asp | Leu | Arg | Gln | Gln | Arg | Asp | Ala | Ile | Ala | Glu Trp |
| | 130 | | | | | 135 | | | | 140 | | | | |
| Ser | Arg | Leu | Ser | Tyr | Gly | Trp | Met | Gly | Arg | Thr | Pro | Asp | Tyr | Lys Ala |
| 145 | | | | | 150 | | | | 155 | | | | | 160 |
| Ala | Phe | Gly | Cys | Ala | Leu | Gly | Ala | Asn | Pro | Ala | Phe | Tyr | Gly | Gln Phe |
| | | | 165 | | | | | 170 | | | | | | 175 |
| Glu | Gln | Asn | Ala | Arg | Asn | Trp | Tyr | Thr | Arg | Ile | Gln | Glu | Thr | Gly Leu |
| | | 180 | | | | | 185 | | | | | 190 | | |
| Tyr | Phe | Asn | His | Ala | Ile | Val | Asn | Pro | Pro | Ile | Asp | Arg | His | Lys Pro |
| | 195 | | | | | | 200 | | | | 205 | | | |
| Ala | Asp | Glu | Val | Lys | Asp | Val | Tyr | Ile | Lys | Leu | Glu | Lys | Glu | Thr Asp |
| | 210 | | | | | 215 | | | | | 220 | | | |
| Ala | Gly | Ile | Ile | Val | Ser | Gly | Ala | Lys | Val | Val | Ala | Thr | Asn | Ser Ala |
| 225 | | | | | 230 | | | | 235 | | | | | 240 |
| Leu | Thr | His | Tyr | Asn | Met | Ile | Gly | Phe | Gly | Ser | Ala | Gln | Val | Met Gly |
| | | | 245 | | | | | 250 | | | | | | 255 |
| Glu | Asn | Pro | Asp | Phe | Ala | Leu | Met | Phe | Val | Ala | Pro | Met | Asp | Ala Glu |
| | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Val | Lys | Leu | Ile | Ser | Arg | Ala | Ser | Tyr | Glu | Met | Val | Ala | Gly Ala |
| | 275 | | | | | | 280 | | | | 285 | | | |
| Thr | Gly | Ser | Pro | Tyr | Asp | Tyr | Pro | Leu | Ser | Ser | Arg | Phe | Asp | Glu Asn |
| | 290 | | | | 295 | | | | | | 300 | | | |
| Asp | Ala | Ile | Leu | Val | Met | Asp | His | Val | Leu | Ile | Pro | Trp | Glu | Asn Val |
| 305 | | | | | 310 | | | | 315 | | | | | 320 |
| Leu | Ile | Tyr | Arg | Asp | Phe | Asp | Arg | Cys | Arg | Arg | Trp | Thr | Met | Glu Gly |
| | | | 325 | | | | | 330 | | | | | | 335 |
| Gly | Phe | Ala | Arg | Met | Tyr | Pro | Leu | Gln | Ala | Cys | Val | Arg | Leu | Ala Val |
| | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Leu | Asp | Phe | Ile | Thr | Ala | Leu | Leu | Lys | Lys | Ser | Leu | Glu | Cys Thr |
| | 355 | | | | | | 360 | | | | | 365 | | |
| Gly | Thr | Leu | Glu | Phe | Arg | Gly | Val | Gln | Ala | Asp | Leu | Gly | Glu | Val Val |
| | 370 | | | | | 375 | | | | | 380 | | | |
| Ala | Trp | Arg | Asn | Met | Phe | Trp | Ala | Leu | Ser | Asp | Ser | Met | Cys | Ser Glu |
| 385 | | | | | 390 | | | | 395 | | | | | 400 |
| Ala | Thr | Pro | Trp | Val | Asn | Gly | Ala | Tyr | Leu | Pro | Asp | His | Ala | Ala Leu |
| | | | 405 | | | | | 410 | | | | | | 415 |
| Gln | Thr | Tyr | Arg | Val | Met | Ala | Pro | Met | Ala | Tyr | Ala | Lys | Ile | Lys Asn |
| | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Ile | Glu | Arg | Asn | Val | Thr | Ser | Gly | Leu | Ile | Tyr | Leu | Pro | Ser Ser |
| | 435 | | | | | 440 | | | | | 445 | | | |
| Ala | Arg | Asp | Leu | Asn | Asn | Pro | Gln | Ile | Asp | Gln | Tyr | Leu | Ala | Lys Tyr |
| | 450 | | | | 455 | | | | 460 | | | | | |
| Val | Arg | Gly | Ser | Asn | Gly | Met | Asp | His | Val | Glu | Arg | Ile | Lys | Ile Leu |
| 465 | | | | | 470 | | | | 475 | | | | | 480 |
| Lys | Leu | Met | Trp | Asp | Ala | Ile | Gly | Ser | Glu | Phe | Gly | Gly | Arg | His Glu |
| | | | 485 | | | | | 490 | | | | | 495 | |
| Leu | Tyr | Glu | Ile | Asn | Tyr | Ser | Gly | Ser | Gln | Asp | Glu | Ile | Arg | Leu Gln |
| | | 500 | | | | | 505 | | | | | 510 | | |
| Cys | Leu | Arg | Gln | Ala | Gln | Ser | Ser | Gly | Asn | Met | Asp | Lys | Met | Met Ala |
| | 515 | | | | | 520 | | | | | 525 | | | |
| Met | Val | Asp | Arg | Cys | Met | Ser | Glu | Tyr | Asp | Gln | His | Gly | Trp | Thr Val |
| | 530 | | | | 535 | | | | 540 | | | | | |
| Pro | His | Leu | His | Asn | Asn | Thr | Asp | Ile | Asn | Met | Leu | Asp | Lys | Leu Leu |
| 545 | | | | | 550 | | | | 555 | | | | | 560 |

Lys

<210> 7987

<211> 568

<212> PRT

<213> Enterobacter cloacae

<400> 7987

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Leu | Pro | Leu | Thr | Leu | Ile | Cys | Pro | Phe | Ser | Asp | Pro | Pro | Leu | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Arg | Met | Val | Ala | His | Gly | Asp | Ala | His | Val | Leu | His | Leu | Arg | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Tyr | Leu | Glu | Ala | Val | Leu | Ala | Ala | Phe | Ala | Pro | Gly | Ala | Gly | Gly | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| His | Ala | Ala | Lys | Arg | Leu | Ala | Gln | Val | Ala | His | Val | Leu | Gly | Val | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | His | His | Ala | Arg | Phe | Asp | Val | Ala | Arg | Gln | Thr | Gln | His | Phe | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Asp | Val | Leu | Gly | Pro | Asp | Val | Arg | Arg | Gln | Ala | Ile | Leu | His | Val | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Gln | Ala | Gln | Ala | Phe | Arg | Phe | Val | Leu | Lys | Arg | Gln | Gln | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Arg | Pro | Glu | Asp | Leu | Phe | Leu | Arg | His | Ala | His | Ala | Val | Ile | Asp |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ile | Arg | Gln | His | Gly | Arg | Ala | Gln | Glu | Val | Ala | Ala | Phe | Gln | Val | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Gln | Ile | Gly | Arg | Phe | Val | Arg | Ala | Ala | Arg | Gln | Gln | Gly | Cys | Pro |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Leu | Phe | Asn | Ala | Glu | Ala | Asp | Ile | Ala | Gly | Asp | Phe | Phe | Pro | Val | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Ala | Asp | Glu | Arg | Ala | Asn | Leu | Gly | Val | Trp | Ile | Gly | Arg | Val | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| His | Ala | Gln | Ala | Val | Gly | Ala | Leu | Gly | Lys | Ala | Phe | Asp | Glu | Leu | Arg |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Val | Asp | Ala | Leu | Leu | Asp | Glu | Asp | Ala | Arg | Ala | Gly | Gly | Ala | Ala | Phe |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Val | Asp | Gly | Glu | Asn | Gly | Glu | Gln | Gly | Gly | Val | Gln | Arg | Ala | Leu |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Asp | Val | Arg | Val | Phe | Lys | Asn | Gln | His | Arg | Arg | Phe | Ala | Ala | Gln | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| His | Arg | Ile | Leu | Leu | Gln | Pro | Gly | Val | Phe | His | Asp | Val | Thr | Pro | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Gly | Ala | Ala | Gly | Glu | Gly | Asp | Gly | Ala | His | Val | Met | Met | Thr | His |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gln | Arg | Val | Ala | Arg | Arg | Gly | Ala | Ile | Ala | Leu | His | His | Val | Glu | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Arg | Arg | Asn | Ala | Arg | Phe | Glu | Gly | Gln | Leu | Ala | Gln | Thr | Val | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Gln | Arg | Gly | Glu | Phe | Arg | His | Leu | Gln | His | Arg | Gly | Val | Thr | Gln |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Glu | Thr | Gly | Arg | Asp | Leu | Pro | Gly | Gly | Gly | His | Lys | Arg | His | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Arg | Arg | His | Gln | Arg | Ala | Asp | Thr | His | Arg | Leu | His | Gln | Gly | Val |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Val | Glu | His | Leu | Val | Val | Asp | Arg | Val | Gly | Phe | Ala | Val | His | Leu | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | His | Leu | Gly | Glu | Glu | Leu | Glu | Val | Val | Arg | Gly | Ala | Arg | Asn | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| His | Val | Phe | Gly | Leu | Val | Asp | Arg | Gln | Ala | Gly | Val | Gly | Gly | Leu | His |
| | | | | 405 | | | | | 410 | | | | | 415 | |

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Arg Gly Asn Val Arg His Val Leu Val Asn Gln Ile Pro Gln Ala Thr
 420 425 430
 His Gln Ala Arg Thr Leu Leu His Arg Gln Val Gly Pro Phe Arg Glu
 435 440 445
 Arg Leu Phe Gly Gly Gly Asn Gly Leu Met Asp Phe Gly Phe Ala Pro
 450 455 460
 Gly Gly Tyr Phe Ser Gln His Leu Ala Gly Gly Arg Val Ser Gly Leu
 465 470 475 480
 Glu Val Leu Thr Ser Gly Asp Val Phe Pro Val Asp Pro Val Val Asn
 485 490 495
 Leu Phe His Phe Ala Val Ser Ser Leu Thr Ile Arg Phe Thr Arg Arg
 500 505 510
 Pro Thr Pro Ser Thr Ser Thr Thr Ser Ser Pro Gly Thr Thr Ser
 515 520 525
 Asp Ser Pro Phe Gly Val Pro Val Ala Ile Met Ser Pro Gly Cys Arg
 530 535 540
 Val Met Lys Ser Leu Arg Tyr Ala Ile Arg Asn Gly Met Leu Lys Met
 545 550 555 560
 Arg Ser Ala Val Val Pro Ser
 565

<210> 7988

<211> 596

<212> PRT

<213> Enterobacter cloacae

<400> 7988

Thr Trp Lys Pro Thr Tyr Cys Arg Ala Gly Arg Arg Val Lys Thr Leu
 1 5 10 15
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 20 25 30
 Leu Tyr Leu Ser Glu Glu Arg Glu Asn Met Leu Asn Arg Ile Lys Ile
 35 40 45
 Val Thr Ser Leu Leu Leu Val Leu Ala Ile Phe Gly Leu Leu Gln Leu
 50 55 60
 Thr Ser Gly Gly Leu Phe Phe Asn Ala Leu Lys His Asp Lys Glu Asn
 65 70 75 80
 Phe Thr Ile Leu Gln Thr Ile Arg Gln Gln Gln Ser Thr Leu Asn Gly
 85 90 95
 Ser Trp Val Ala Leu Leu Gln Thr Arg Asn Thr Leu Asn Arg Ala Gly
 100 105 110
 Ile Arg Tyr Met Met Asp Gln Asn Asn Ile Gly Ser Gly Ser Thr Val
 115 120 125
 Ala Glu Leu Met Gln Ile Ala Ser Ala Ser Leu Lys Gln Ala Glu Lys
 130 135 140
 Asn Trp Ala Asp Tyr Glu Ala Leu Pro Arg Asp Pro Arg Gln Ser Asp
 145 150 155 160
 Ala Ala Ala Leu Glu Ile Lys Arg Asn Tyr Asp Ile Tyr His Gly Ala
 165 170 175
 Leu Ala Glu Leu Ile Gln Leu Leu Gly Ala Gly Lys Ile Asn Glu Phe
 180 185 190
 Phe Asp Gln Pro Thr Gln Ser Tyr Gln Asp Gly Phe Glu Lys Gln Tyr
 195 200 205
 Val Thr Tyr Leu Gln Gln Asn Asp Ala Leu Tyr Gln Thr Ala Val Glu
 210 215 220
 Asp Ser Asn Ser Ser Tyr Arg Gln Ala Ile Trp Val Leu Ile Ser Val
 225 230 235 240
 Leu Ala Ala Val Leu Val Val Ile Val Ala Val Trp Leu Gly Ile Arg
 245 250 255
 Gln Ala Leu Ile Ser Pro Leu Asn Arg Leu Ile Asp Ser Ile Arg His
 260 265 270

Ile Ala Ser Gly Asp Leu Val Lys Arg Ile Asp Val Glu Gly Ser Asn
 275 280 285
 Glu Met Gly Glu Leu Ala Asp Ser Leu Arg His Met Gln Gly Glu Leu
 290 295 300
 Val Arg Thr Val Gly Asp Val Arg Asn Gly Ala Asn Ala Ile Tyr Ser
 305 310 315 320
 Gly Ala Ser Glu Ile Ser Met Gly Asn Asn Asp Leu Ser Ser Arg Thr
 325 330 335
 Glu Gln Gln Ala Ala Ser Leu Glu Glu Thr Ala Ala Ser Met Glu Gln
 340 345 350
 Leu Thr Ala Thr Val Lys Gln Asn Ala Glu Asn Ala Arg Gln Ala Ser
 355 360 365
 Asn Leu Ala Leu Ser Ala Ser Glu Thr Ala Gln Lys Gly Gly Lys Val
 370 375 380
 Val Asp Asn Val Val Gln Thr Met Arg Asp Ile Ala Gly Ser Ser Gln
 385 390 395 400
 Lys Ile Ala Asp Ile Ile Ser Val Ile Asp Gly Ile Ala Phe Gln Thr
 405 410 415
 Asn Ile Leu Ala Leu Asn Ala Ala Val Glu Ala Ala Arg Ala Gly Glu
 420 425 430
 Gln Gly Arg Gly Phe Ala Val Val Ala Gly Glu Val Arg Asn Leu Ala
 435 440 445
 Gln Arg Ser Ala Gln Ala Ala Arg Glu Ile Lys Ser Leu Ile Glu Asp
 450 455 460
 Ser Val Gly Arg Val Glu Ile Gly Ser Thr Leu Val Glu Ser Ala Gly
 465 470 475 480
 Glu Thr Met Gly Glu Ile Val Asn Ala Val Thr Arg Val Thr Asp Ile
 485 490 495
 Met Gly Glu Ile Ala Ser Ala Ser Asp Glu Gln Ser Arg Gly Ile Asp
 500 505 510
 Gln Val Gly Leu Ala Val Ala Glu Met Asp Arg Val Thr Gln Gln Asn
 515 520 525
 Ala Ser Leu Val Glu Glu Ser Ala Ala Ala Ala Ala Leu Glu Glu
 530 535 540
 Gln Ala Ser Arg Leu Thr Gln Ala Val Ala Val Phe Arg Ile Gln Gln
 545 550 555 560
 Glu Gln Met Lys Ala Arg Glu Phe Ala Ser Ala Lys Ser Val Ala Ala
 565 570 575
 Pro Val Val Ala Arg Lys Pro Ala Thr Ala Asp Ala Gly Asp Asn Trp
 580 585 590
 Glu Thr Phe
 595

<210> 7989

<211> 152

<212> PRT

<213> Enterobacter cloacae

<400> 7989

Cys Lys Gly Lys Val Met His Asp Ser Leu Thr Ile Ala Leu Leu Gln
 1 5 10 15
 Ala Arg Glu Ala Ala Met Gly Tyr Phe Arg Pro Ile Val Lys Arg His
 20 25 30
 Asn Leu Thr Glu Gln Gln Trp Arg Ile Val Arg Val Leu Ala Glu His
 35 40 45
 Pro Ser Met Asp Phe His Asp Leu Ala Phe Arg Thr Cys Ile Leu Arg
 50 55 60
 Pro Ser Leu Thr Gly Ile Leu Thr Arg Met Glu Arg Asp Gly Leu Val
 65 70 75 80
 Leu Arg Leu Lys Pro Val Asn Asp Gln Arg Lys Leu Tyr Val Ser Leu
 85 90 95

Thr Lys Glu Gly Asn Ala Leu Tyr Gln Arg Ala Gln Ala Gln Val Glu
 100 105 110
 Glu Ala Tyr Gln Gln Ile Glu Ala Glu Tyr Thr Pro Glu Lys Met Thr
 115 120 125
 Gln Leu Thr Ala Leu Leu Glu Glu Phe Ile Glu Leu Gly Asn Arg His
 130 135 140
 Ile Ala Ala Arg Asp Glu Glu
 145 150

<210> 7990

<211> 275

<212> PRT

<213> Enterobacter cloacae

<400> 7990

Phe Cys Val Val Val Trp Phe Cys Pro Ala Pro Phe Leu Ala Ala Lys
 1 5 10 15
 Ala Gln Leu Ile Phe Asn Val Ile Glu Ser Phe Ser Gln Val Ile Phe
 20 25 30
 Gly Ile Ile Asn Met Ile Met Arg Leu Ala Pro Ile Gly Ala Phe Gly
 35 40 45
 Ala Met Ala Phe Thr Ile Gly Lys Tyr Gly Val Gly Thr Leu Val Gln
 50 55 60
 Leu Gly Gln Leu Ile Val Cys Phe Tyr Ile Thr Cys Ile Leu Phe Val
 65 70 75 80
 Val Val Val Leu Gly Ser Ile Ala Arg Ala Thr Gly Phe Ser Ile Phe
 85 90 95
 Lys Phe Ile Arg Tyr Ile Arg Glu Glu Leu Leu Ile Val Leu Gly Thr
 100 105 110
 Ser Ser Ser Glu Ser Ala Leu Pro Arg Met Leu Asp Lys Met Glu Lys
 115 120 125
 Leu Gly Cys Arg Lys Ser Val Val Gly Leu Val Ile Pro Thr Gly Tyr
 130 135 140
 Ser Phe Asn Leu Asp Gly Thr Ser Ile Tyr Leu Thr Met Ala Ala Val
 145 150 155 160
 Phe Ile Ala Gln Ala Thr Asn Ser His Met Asp Ile Phe His Gln Ile
 165 170 175
 Thr Leu Leu Val Val Leu Leu Leu Ser Lys Gly Ala Ala Gly Val
 180 185 190
 Thr Gly Ser Gly Phe Ile Val Leu Ala Ala Thr Ile Ser Ala Val Gly
 195 200 205
 His Leu Pro Val Ala Gly Leu Ala Leu Ile Leu Gly Ile Asp Arg Phe
 210 215 220
 Met Ser Glu Ala Arg Ala Leu Thr Asn Leu Val Gly Asn Gly Val Ala
 225 230 235 240
 Thr Ile Val Val Ala Lys Trp Val Lys Glu Leu Asp His Lys Lys Leu
 245 250 255
 Asn Asp Thr Leu Asn Asn Arg Thr Ser Glu Asp Lys Thr Pro Gly Leu
 260 265 270
 Ser Ser
 275

<210> 7991

<211> 501

<212> PRT

<213> Enterobacter cloacae

<400> 7991

Ser Gly Val His Met Gln Gly Thr Lys Ile Arg Leu Leu Thr Gly Gly
 1 5 10 15
 Leu Leu Met Met Ala Ala Ala Ser Tyr Val Gln Ala Asp Ala Leu Gln

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | 25 | | | | 30 | | | | |
| Pro | Asp | Pro | Ala | Trp | Gln | Gln | Gly | Thr | Leu | Ala | Asn | Gly | Phe | Gln | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Val | Leu | Ser | Thr | Pro | Gln | Arg | Pro | Ser | Asp | Arg | Ile | Glu | Ile | Arg |
| | | 50 | | | 55 | | | | 60 | | | | | | |
| Leu | Ser | Val | Asn | Thr | Gly | Ser | Leu | Thr | Glu | Ser | Thr | Gln | Gln | Thr | Gly |
| 65 | | | | | 70 | | | 75 | | | | | | 80 | |
| Leu | Ser | His | Phe | Ile | Pro | Arg | Leu | Ala | Leu | Thr | Gln | Ser | Gly | Ser | Leu |
| | | | | 85 | | | 90 | | | | | | 95 | | |
| Gln | Ala | Val | Gln | Val | Arg | Ser | Leu | Trp | Gln | Gln | Ala | Ile | Asp | Pro | Lys |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Arg | Pro | Leu | Pro | Pro | Ala | Val | Val | Ser | Tyr | Asp | Tyr | Thr | Met | Phe | Asn |
| | | 115 | | | 120 | | | | 125 | | | | | | |
| Leu | Ser | Leu | Pro | Asn | Asn | Arg | Asn | Asp | Leu | Leu | Lys | Glu | Ala | Leu | Thr |
| 130 | | | | 135 | | | | 140 | | | | | | | |
| Tyr | Leu | Ser | Asp | Ala | Thr | Gly | Lys | Leu | Ala | Ile | Thr | Pro | Glu | Thr | Val |
| 145 | | | | | 150 | | | 155 | | | | | | 160 | |
| Asn | Tyr | Ala | Leu | Ser | Asn | Ser | Asp | Met | Val | Ala | Thr | Trp | Pro | Thr | Asp |
| | | | | 165 | | | 170 | | | | | | 175 | | |
| Thr | Lys | Glu | Gly | Trp | Trp | Arg | Tyr | Arg | Leu | Lys | Gly | Ser | Thr | Leu | Leu |
| | | 180 | | | | 185 | | | | | | 190 | | | |
| Gly | His | Asp | Pro | Ala | Glu | Pro | Leu | Lys | Gln | Pro | Val | Asp | Ala | Glu | Gln |
| 195 | | | | | | 200 | | | | 205 | | | | | |
| Val | Lys | Ser | Phe | Tyr | Gln | Gln | Trp | Tyr | Thr | Pro | Asp | Ala | Met | Thr | Leu |
| 210 | | | | 215 | | | | 220 | | | | | | | |
| Ile | Val | Val | Gly | Asn | Val | Asp | Ser | Arg | Ala | Val | Ile | Glu | Gln | Ile | Asn |
| 225 | | | 230 | | | | 235 | | | | | | 240 | | |
| Lys | Ala | Phe | Gly | Asp | Leu | Lys | Gly | Lys | Arg | Glu | Thr | Pro | Ala | Pro | Val |
| | | 245 | | | | 250 | | | | | | 255 | | | |
| Pro | Thr | Leu | Ser | Pro | Leu | Arg | Pro | Glu | Thr | Val | Ser | Ile | Met | Thr | Asp |
| | | 260 | | | | 265 | | | | 270 | | | | | |
| Thr | Val | Arg | Gln | Asp | Arg | Leu | Ser | Met | Met | Trp | Asp | Thr | Ala | Trp | Gln |
| 275 | | | | | | 280 | | | | 285 | | | | | |
| Pro | Ile | Arg | Glu | Ser | Ser | Ala | Leu | Leu | Arg | Tyr | Trp | Arg | Ala | Asp | Leu |
| 290 | | | | 295 | | | | 300 | | | | | | | |
| Ala | Arg | Glu | Ala | Leu | Phe | Trp | His | Val | Gln | Gln | Thr | Leu | Ser | Lys | Asn |
| 305 | | | 310 | | | | 315 | | | | | | 320 | | |
| Asn | Val | Lys | Asp | Ile | Gly | Leu | Gly | Phe | Asp | Cys | Arg | Val | Leu | Phe | Gln |
| | | 325 | | | | 330 | | | | | | 335 | | | |
| Arg | Ala | Gln | Cys | Ala | Ile | Asn | Val | Glu | Ser | Pro | Gly | Asp | Lys | Leu | Asn |
| | | 340 | | | | 345 | | | | 350 | | | | | |
| Ala | Asn | Leu | Gly | Val | Val | Ala | Lys | Glu | Leu | Ala | Lys | Val | Arg | Lys | Glu |
| 355 | | | | | | 360 | | | | 365 | | | | | |
| Gly | Leu | Ser | Glu | Glu | Glu | Phe | Asn | Ala | Leu | Val | Ala | Gln | Lys | Ser | Leu |
| 370 | | | | 375 | | | | 380 | | | | | | | |
| Glu | Leu | Gln | Lys | Leu | Phe | Ala | Thr | Tyr | Ala | Arg | Ala | Asp | Thr | Asp | Ile |
| 385 | | | 390 | | | | | | | | | | | | |

<210> 7992
 <211> 274
 <212> PRT
 <213> Enterobacter cloacae

<400> 7992

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Leu Ser Asp Glu Ser Arg Lys Ala Ile Pro Tyr Asn Arg Thr Ser Glu
1      5      10      15
Met Lys Ser Glu Gln Val Ile Gln Arg Leu Ser Thr Thr Pro Glu Ala
20      25      30
Ser Ile Glu Asn Leu Gln Glu His Arg Tyr Trp Leu Gln Cys Glu Arg
35      40      45
Ala Tyr Thr Tyr Gln Pro Ile Tyr Arg Thr Asp Gly Arg Leu Met Ala
50      55      60
Ile Glu Val Leu Thr Val Val Thr His Pro Ser Asn Pro Ser Gln Arg
65      70      75      80
Ile Ala Pro Asp Arg Tyr Phe Ala Glu Val Ala Val Arg Gln Arg Ile
85      90      95
Asp Val Leu Glu Gln Leu Arg Met Leu Ala Thr Lys Gln Ala Phe
100     105     110
Phe Lys Gln His Gly Ile Leu Ala Ser Val Asn Val Asp Gly Pro Thr
115     120     125
Leu Met Ala Leu Arg Gln Asn Ala Thr Leu Gln Ala Leu Ile Ala Thr
130     135     140
Leu Pro Trp Met Arg Phe Glu Leu Val Glu His Val Gln Leu Pro Gln
145     150     155     160
Asp Ser Ser Phe Ala Ser Met Cys Glu Phe Gly Pro Leu Trp Leu Asp
165     170     175
Asp Phe Gly Thr Gly Met Ala Asn Phe Ser Ala Leu Ser Glu Val Arg
180     185     190
Tyr Asp Tyr Ile Lys Val Ala Arg Asp Leu Phe Ile Met Leu Arg Gln
195     200     205
Thr Pro Glu Gly Arg Asn Leu Phe Thr Met Leu Leu Gln Leu Met Asn
210     215     220
Arg Tyr Cys Gln Gly Val Ile Val Glu Gly Val Glu Thr Leu Glu Glu
225     230     235     240
Trp Arg Asp Val Gln Asn Ser Pro Ala Ala Ala Gln Gly Tyr Phe
245     250     255
Leu Ser Arg Pro Val Pro Met Asp Thr Leu Glu Lys Val Ile Thr Ser
260     265     270
Leu

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<210> 7993
 <211> 254
 <212> PRT
 <213> Enterobacter cloacae

<400> 7993

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Ile Met Ser Glu Arg Ile Ala Leu Val Thr Gly Gly Ser Arg Gly Leu
1      5      10      15
Gly Lys Asn Ala Val Leu Lys Leu Ala Ala Glu Gly Thr Gly Ile Ile
20      25      30
Leu Thr Trp Asn Asn Ser Gln Gln Glu Ala Gln Glu Val Val Arg Glu
35      40      45
Ile Glu Gly Lys Gly Gly Lys Ala Ala Ala Leu Gln Leu Asn Val Gly
50      55      60
Asp Thr Ala Ser Phe Ser Arg Phe Ala Gln Lys Val Lys Asp Thr Leu
65      70      75      80
Lys His Val Trp Gln Arg Asp Thr Phe Asp Tyr Leu Val Asn Asn Ala

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 85 | | | | 90 | | | | | 95 | | | | |
| Gly | Thr | Gly | Leu | Tyr | Ala | Pro | Tyr | Thr | Glu | Thr | Thr | Glu | Ala | Gln | Phe | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Asp | Asp | Ala | Met | Asn | Ile | His | Phe | Lys | Gly | Pro | Phe | Phe | Leu | Thr | Gln | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Gln | Leu | Leu | Pro | Leu | Ile | Lys | Asp | Gly | Gly | Arg | Ile | Leu | Asn | Val | Ser | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Ser | Gly | Leu | Ala | Arg | Phe | Thr | Gln | Pro | Gly | Ser | Gly | Thr | Tyr | Ala | Ala | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Met | Lys | Gly | Ala | Met | Glu | Val | Leu | Thr | Arg | Tyr | Gln | Ala | Lys | Glu | Leu | | |
| | | | | 165 | | | | | 170 | | | | | | 175 | | |
| Gly | Ala | Arg | Gly | Ile | Ser | Val | Asn | Ile | Ile | Ala | Pro | Gly | Ala | Ile | Glu | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Thr | Asp | Phe | Gly | Gly | Gly | Arg | Val | Arg | Asp | Asn | Ala | Glu | Leu | Asn | Gln | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Leu | Leu | Ala | Ser | Gln | Thr | Ala | Leu | Gly | Arg | Val | Gly | Leu | Pro | Asp | Asp | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Ile | Gly | Asp | Ala | Ile | Ala | Ala | Leu | Leu | Ser | Asp | Lys | Leu | Gly | Trp | Met | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Asn | Ala | Gln | Arg | Ile | Glu | Val | Ser | Gly | Gly | Met | Phe | Leu | | | | | |
| | | | | 245 | | | | | 250 | | | | | | | | |

<210> 7994

<211> 229

<212> PRT

<213> Enterobacter cloacae

<400> 7994

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Phe | Val | Thr | Ser | Pro | Phe | Ile | Glu | Phe | Phe | Leu | Lys | Lys | Cys | Leu | Cys | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | |
| Arg | Ile | Pro | Leu | Arg | Tyr | Ser | Gln | Arg | Ser | Lys | Thr | Met | Arg | Val | Ile | | |
| | | 20 | | | | | 25 | | | | | | 30 | | | | |
| Met | Phe | Asp | Arg | Gln | Ser | Leu | Phe | Ile | His | Gly | Ala | Met | Tyr | Ser | Leu | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Gln | Lys | Leu | Ile | Pro | Lys | Ile | Asp | Met | Thr | Gly | Thr | Arg | Gln | Thr | Asp | | |
| | | 50 | | | | 55 | | | | | 60 | | | | | | |
| Glu | Leu | Trp | Ala | Gln | Leu | Ser | Ala | Ser | Pro | Ser | Ala | Ile | Val | Met | Ile | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Asp | Gly | Tyr | Leu | Ile | Arg | Asp | Asn | Gly | Val | Ala | Leu | Leu | Glu | Glu | Ile | | |
| | | | | 85 | | | | 90 | | | | | | 95 | | | |
| Met | Asp | Arg | Phe | Pro | Thr | Ser | Arg | Val | Val | Leu | Val | Leu | Thr | Lys | Lys | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Glu | Arg | Arg | Trp | Val | Glu | Gln | Met | Phe | Gln | Arg | Asn | Val | Val | Ala | Ile | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ile | Pro | Arg | Asn | Ala | Asn | Pro | Glu | Arg | Phe | Ser | Ala | Val | Leu | Asp | Ser | | |
| | | 130 | | | | 135 | | | | | 140 | | | | | | |
| Val | Ser | Arg | Gly | Met | Val | Cys | Phe | Pro | Gly | Glu | Trp | Leu | Lys | Gln | His | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Thr | Ser | Gln | Asp | Glu | Leu | Ala | Val | Leu | Ser | Glu | Arg | Gln | Arg | Glu | Val | | |
| | | | | 165 | | | | 170 | | | | | | 175 | | | |
| Leu | Lys | Leu | Leu | Ala | Ala | Gly | Glu | Ser | Asn | Lys | Glu | Ile | Gly | Arg | Asn | | |
| | | | 180 | | | | 185 | | | | | | 190 | | | | |
| Leu | Asn | Ile | Ser | Ala | Ala | Thr | Val | Lys | Ala | His | Leu | Glu | Thr | Leu | Phe | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Arg | Arg | Leu | Asp | Val | Lys | Asn | Arg | Thr | Gln | Ala | Ala | Met | Tyr | Tyr | Thr | | |
| | | 210 | | | | 215 | | | | | 220 | | | | | | |
| Arg | Ala | Thr | Ala | | | | | | | | | | | | | | |
| 225 | | | | | | | | | | | | | | | | | |

<210> 7995

<211> 743

<212> PRT

<213> Enterobacter cloacae

<400> 7995

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asp | Asp | Leu | Pro | Gln | Phe | Thr | Ala | Glu | Arg | His | Arg | Leu | Pro | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Pro | Val | Ser | Ala | Ala | Pro | Pro | Gly | Ser | Phe | Pro | Pro | Arg | Leu | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
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| Arg | Met | Arg | Ala | Ser | Phe | Thr | Tyr | Phe | Asn | Arg | Thr | Ala | Phe | Met | Thr |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asn | Pro | Leu | Leu | Thr | Pro | Phe | Ser | Leu | Pro | Pro | Phe | Ser | Lys | Ile | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Glu | His | Val | Val | Pro | Ala | Val | Thr | Gln | Ser | Leu | Asp | Asn | Cys | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ala | Val | Glu | Ser | Val | Val | Ala | Gln | Gly | Gly | Pro | Tyr | Thr | Trp | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Leu | Cys | Gln | Pro | Leu | Ala | Glu | Val | Asp | Asp | Val | Leu | Gly | Arg | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Ser | Pro | Val | Ser | His | Leu | Asn | Ser | Val | Lys | Asn | Ser | Pro | Glu | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Glu | Ala | Tyr | Glu | Gln | Thr | Leu | Pro | Leu | Leu | Ser | Glu | Tyr | Ser | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Trp | Val | Gly | Gln | His | Glu | Gly | Leu | Tyr | Lys | Ala | Tyr | Arg | Asp | Leu | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Asp | Gly | Asp | His | Tyr | Ala | Glu | Leu | Asn | Thr | Ala | Gln | Lys | Lys | Ser | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Asn | Ala | Leu | Arg | Asp | Phe | Glu | Leu | Ser | Gly | Ile | Gly | Leu | Pro | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Glu | Lys | Gln | Val | Arg | Tyr | Gly | Glu | Ile | Ala | Ala | Arg | Leu | Ser | Glu | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gly | Asn | Gln | Tyr | Ser | Asn | Asn | Val | Leu | Asp | Ala | Thr | Met | Gly | Trp | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Leu | Ile | Thr | Asp | Glu | Ser | Glu | Leu | Ala | Gly | Met | Pro | Glu | Ser | Ala |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Ala | Ala | Ala | Lys | Ala | Gln | Ala | Glu | Ala | Lys | Glu | Gln | Glu | Gly | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Leu | Thr | Leu | Asp | Ile | Pro | Ser | Tyr | Leu | Pro | Val | Met | Thr | Tyr | Cys |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Asn | Gln | Ala | Leu | Arg | Glu | Glu | Met | Tyr | Arg | Ala | Tyr | Ser | Thr | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Ser | Asp | Gln | Gly | Pro | Asn | Ala | Gly | Lys | Trp | Asp | Asn | Ser | Pro | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Met | Ala | Glu | Ile | Leu | Ala | Leu | Arg | His | Glu | Leu | Ala | Gln | Leu | Leu | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Phe | Asp | Ser | Tyr | Ala | Asp | Lys | Ser | Leu | Ala | Thr | Lys | Met | Ala | Glu | Asn |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Pro | Gln | Gln | Val | Leu | Asp | Phe | Leu | Thr | Asp | Leu | Ala | Lys | Arg | Ala | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Pro | Gln | Gly | Glu | Lys | Glu | Leu | Ala | Gln | Leu | Arg | Ala | Phe | Ala | Lys | Ala |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Glu | Phe | Gly | Val | Asp | Glu | Leu | Gln | Pro | Trp | Asp | Ile | Ala | Tyr | Tyr | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Lys | Gln | Lys | Gln | His | Leu | Tyr | Ser | Ile | Ser | Asp | Glu | Gln | Leu | Arg |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Pro | Tyr | Phe | Pro | Glu | Asn | Lys | Ala | Val | Asn | Gly | Leu | Phe | Glu | Val | Val |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Lys | Arg | Ile | Tyr | Gly | Ile | Thr | Ala | Lys | Glu | Arg | Thr | Asp | Ile | Asp | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Trp | His | Pro | Asp | Val | Arg | Phe | Phe | Glu | Leu | Tyr | Asp | Asp | Lys | Asn | Glu |

450 455 460
 Leu Arg Gly Ser Phe Tyr Leu Asp Leu Tyr Ala Arg Glu Asn Lys Arg
 465 470 475 480
 Gly Gly Ala Trp Met Asp Asp Cys Val Gly Gln Met Arg Lys Ala Asp
 485 490 495
 Gly Ser Leu Gln Lys Pro Val Ala Tyr Leu Thr Cys Asn Phe Asn Arg
 500 505 510
 Pro Val Ser Gly Lys Pro Ala Leu Phe Thr His Asp Glu Val Ile Thr
 515 520 525
 Leu Phe His Glu Phe Gly His Gly Leu His His Met Leu Thr Arg Ile
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 Glu Thr Ala Gly Val Ala Gly Ile Ser Gly Val Pro Trp Asp Ala Val
 545 550 555 560
 Glu Leu Pro Ser Gln Phe Met Glu Asn Trp Cys Trp Glu Pro Asp Ala
 565 570 575
 Leu Ala Phe Ile Ser Gly His Tyr Glu Thr Gly Glu Pro Leu Pro Lys
 580 585 590
 Glu Leu Leu Asp Lys Met Leu Ala Ala Lys Asn Tyr Gln Ala Ala Met
 595 600 605
 Phe Ile Leu Arg Gln Leu Glu Phe Gly Leu Phe Asp Phe Arg Leu His
 610 615 620
 Ala Glu Phe Ser Pro Glu Gln Gly Ala Lys Ile Leu Glu Thr Leu Ala
 625 630 635 640
 Glu Ile Lys Lys Gln Val Ala Val Ile Pro Gly Pro Thr Trp Gly Arg
 645 650 655
 Phe Pro His Ala Phe Ser His Ile Phe Ala Gly Gly Tyr Ala Ala Gly
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 Tyr Tyr Ser Tyr Leu Trp Ala Asp Val Leu Ala Ala Asp Ala Phe Ser
 675 680 685
 Arg Phe Glu Glu Glu Gly Ile Phe Asn Arg Glu Thr Gly Gln Ser Phe
 690 695 700
 Leu Asp Asn Ile Leu Thr Arg Gly Gly Ser Glu Glu Pro Met Glu Leu
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 His Tyr Gly Ile Lys Gly
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<212> PRT

<213> Enterobacter cloacae

<400> 7996

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 35 40 45
 Leu Phe Trp Ala Leu Cys Val Val Cys Ile Val Asn Met Ala Arg Tyr
 50 55 60
 Phe Ser Ser Leu Arg Ala Leu Leu Val Val Leu Arg Gly Cys Asp Pro
 65 70 75 80
 Leu Leu Tyr Gln Tyr Val Asp Gly Gly Gly Phe Phe Thr Ser His Gly
 85 90 95
 Gln Pro Ser Lys Gln Met Arg Leu Val Gly Tyr Ile Tyr Tyr Gln Arg
 100 105 110
 Tyr Arg Asp His His Asp Glu Glu Phe Ile Arg Arg Cys Glu Arg Leu
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 Arg Arg Gln Phe Ile Leu Thr Ser Ala Leu Cys Gly Leu Val Val Val

130 135 140
 Ser Met Ile Ala Leu Met Ile Trp His
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<210> 7997

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<400> 7997

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 35 40 45
 Met Ala Gly Gln Ala Gly Arg Arg Val Leu Leu Leu Asp Asn Gly Lys
 50 55 60
 Lys Pro Gly Arg Lys Ile Leu Met Ser Gly Gly Gly Arg Cys Asn Phe
 65 70 75 80
 Thr Asn Leu Tyr Val Glu Pro Ala Ala Tyr Leu Ser Gln Asn Arg His
 85 90 95
 Phe Cys Lys Ser Ala Leu Ala Arg Tyr Thr Gln Trp Asp Phe Ile Glu
 100 105 110
 Leu Val Gly Lys His Gly Ile Ala Trp His Glu Lys Thr Leu Gly Gln
 115 120 125
 Leu Phe Cys Asp Asp Ser Ala Gln Gln Ile Val Asp Met Leu Val Ala
 130 135 140
 Glu Cys Glu Lys Gly Gly Val Val Met Arg Leu Arg Thr Glu Val Leu
 145 150 155 160
 Asp Val Ala Arg Asp Glu Gln Gly Tyr Thr Leu Gln Leu Asn Gly Glu
 165 170 175
 Thr Val Ser Ala Asp Asn Leu Val Ile Ala Ser Gly Gly Leu Ser Met
 180 185 190
 Pro Gly Leu Gly Ala Ser Pro Phe Gly Tyr Lys Ile Ala Glu Gln Phe
 195 200 205
 Gly Leu Lys Val Leu Pro Thr Arg Ala Gly Leu Val Pro Phe Thr Leu
 210 215 220
 His Lys Pro Leu Leu Glu Gln Leu Gln Thr Leu Ser Gly Val Ser Val
 225 230 235 240
 Pro Ser Val Ile Thr Ala Glu Asp Gly Thr Val Phe Arg Glu Asn Leu
 245 250 255
 Leu Phe Thr His Arg Gly Leu Ser Gly Pro Ala Val Leu Gln Ile Ser
 260 265 270
 Ser Tyr Trp Gln Pro Gly Glu Phe Val Ser Val Asn Leu Val Pro Asp
 275 280 285
 Cys Asp Leu Asp Ala Phe Leu Asn Glu Gln Arg Ala Ala His Pro Asn
 290 295 300
 Gln Ser Leu Lys Asn Thr Leu Ala Met Gln Leu Pro Lys Arg Leu Val
 305 310 315 320
 Glu Cys Leu Gln Val Leu Gly Gln Ile Pro Asp Val Ala Leu Lys Gln
 325 330 335
 Leu Asn Ser Arg Glu Gln Glu Thr Leu Val Glu Thr Leu Thr Asn Trp
 340 345 350
 Arg Val Gln Pro Asn Gly Thr Glu Gly Tyr Arg Thr Ala Glu Val Thr
 355 360 365
 Leu Gly Gly Val Asp Thr Asn Glu Leu Ser Ser Arg Thr Met Glu Ala
 370 375 380
 Arg Asn Val Pro Gly Leu Tyr Phe Ile Gly Glu Val Met Asp Val Thr
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 Ala Cys Ala Gln Ala Leu Ala Asp Val Arg Gly Gln
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| Ala | Ala | Ser | Arg 20 | Ser | Trp | Met | Arg | Cys 25 | Trp | Ser | Ile | Thr | Glu 30 | Ser | Lys |
| Ala | Asp | Cys 35 | Tyr | Val | Lys | Ile | Cys 40 | Leu | Val | Asp | Glu | Thr 45 | Gly | Ala | Gly |
| Asp | Gly 50 | Ala | Leu | Ser | Val | Leu 55 | Ala | Ala | Arg | Trp | Gly 60 | Leu | Glu | His | Asp |
| Glu 65 | Asp | Asn | Leu | Met 70 | Ala | Leu | Val | Met | Thr 75 | Pro | Glu | His | Leu | Glu 80 | Leu |
| Arg | Lys | Arg | Asp | Glu 85 | Pro | Lys | Leu | Gly | Gly 90 | Ile | Phe | Val | Asp | Phe 95 | Val |
| Gly | Gly | Ala | Met 100 | Ala | His | Arg | Arg | Lys 105 | Phe | Gly | Gly | Gly 110 | Arg | Gly | Glu |
| Ala | Val | Ala 115 | Lys | Ala | Val | Gly | Ile 120 | Lys | Gly | Ser | Tyr | Leu 125 | Pro | Asp | Val |
| Val | Asp 130 | Ala | Thr | Ala | Gly | Leu 135 | Gly | Arg | Asp | Ala | Phe | Val 140 | Leu | Ala | Ser |
| Val 145 | Gly | Cys | Arg | Val 150 | Met | Leu | Glu | Arg | Asn 155 | Pro | Val | Val | Ala | Ala 160 | Ala |
| Leu | Leu | Asp | Asp | Gly 165 | Leu | Thr | Arg | Gly | Tyr 170 | Ala | Asp | Pro | Glu | Ile 175 | Gly |
| Ser | Trp | Leu | Gln 180 | Glu | Arg | Leu | Gln | Leu 185 | Ile | His | Ala | Ser | Ser 190 | Leu | Thr |
| Ala | Leu | Thr 195 | Asp | Ile | Thr | Pro | Arg 200 | Pro | Gln | Val | Val | Tyr 205 | Leu | Asp | Pro |
| Met | Phe 210 | Pro | His | Lys | Gln | Lys 215 | Ser | Ala | Leu | Val | Lys 220 | Glu | Met | Arg | |
| Val 225 | Phe | Gln | Ser | Leu 230 | Val | Gly | Pro | Asp | Leu | Asp 235 | Ala | Asp | Gly | Leu | Leu 240 |
| Glu | Pro | Ala | Arg | Gln 245 | Leu | Ala | Thr | Lys | Arg 250 | Val | Val | Val | Lys | Arg 255 | Pro |
| Asp | Tyr | Ala | Pro 260 | Pro | Leu | Ala | Asp | Val 265 | Ala | Thr | Thr | Asn | Ala 270 | Val | Thr |
| Thr | Lys | Gly 275 | His | Arg | Phe | Asp | Ile 280 | Tyr | Ser | Gly | Thr | Pro 285 | Glu | | |

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<210> 7999
<211> 284
<212> PRT
<213> Enterobacter cloacae
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| Gly | Thr | Ile | Met | Ala | Arg | Gly | Arg | Arg | Leu | Lys | Ser | Tyr | Leu | Asp | Tyr |
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| Glu | Asn | Ala | Leu | Gly | Asp | Gly | Ile | Gly | Val | Gly | Tyr | Gly | Gln | Ser | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gln | Pro | Trp | Leu | Arg | Ala | Gln | Asp | Val | Lys | Ser | Arg | Gly | Asn | Arg | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Val | Phe | Gly | Leu | Lys | Thr | Phe | Arg | Asn | His | His | Leu | Leu | Ser | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Glu | Ser | Asn | Phe | Phe | Tyr | Leu | Ala | Glu | Phe | Asn | Asp | Ser | Val | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Ile | Arg | Glu | Gln | Phe | Pro | Leu | Phe | Pro | Leu | Arg | Leu | Thr | Gln | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Ala | Asn | His | Leu | His | Phe | Gln | His | Pro | Met | Val | Arg | Gly | Val | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Val | Pro | Val | Glu | Val | Leu | Asn | Val | Met | Thr | Thr | Asp | Phe | Leu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Arg | Thr | Pro | Glu | Gly | Gly | Leu | Arg | Tyr | Lys | Ala | Ile | Ala | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Lys | His | Asn | Glu | Ser | Ile | Pro | Glu | Arg | Glu | Ala | Gln | Lys | Leu | Glu | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Arg | Met | Phe | Trp | Gln | Leu | Ile | Asp | Val | Glu | Phe | Gln | Ile | Tyr | Val |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Gly | Ser | Glu | Leu | Asn | Asn | Val | Val | Gly | Lys | Asn | Ile | Cys | Trp | Ala | Thr |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Ser | Val | Leu | Arg | Asp | Gly | Ser | Glu | Phe | Tyr | Asp | Lys | Tyr | Pro | Leu | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Lys | Ile | Leu | Trp | Lys | Leu | Lys | Pro | Asp | Val | Tyr | Pro | Ile | Val | Gly | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Ala | Met | Ile | Ser | Ser | Ile | Phe | Gly | Val | Asp | Ala | Gln | Glu | Ala | Met |
| 225 | | | | | | 230 | | | | 235 | | | | | 240 |
| Met | Leu | Leu | Gln | Ala | Met | Ile | Gly | Leu | Lys | Met | Ile | Asn | Val | Asp | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ser | Tyr | Pro | Ile | Leu | Glu | Thr | Gly | Leu | Ile | Lys | Ile | Ile | Ser | Asn | Asp |
| | | | 260 | | | | | 265 | | | | | | 270 | |
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<210> 8000

<211> 315

<212> PRT

<213> Enterobacter cloacae

<400> 8000

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| Gly | Arg | Arg | Ile | Met | Asn | Leu | Ile | Arg | Arg | Val | Ser | Ala | Ile | Tyr | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Glu | Gln | Glu | Leu | Pro | Glu | Tyr | Arg | Gly | Asn | Pro | Leu | Ile | Glu | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Glu | Ala | Leu | Thr | Glu | Asp | Glu | Val | Leu | Leu | Glu | Met | Ser | Tyr | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Glu | Ile | Asp | Glu | Lys | Ile | Arg | Trp | Thr | Ala | Pro | Ala | Asn | Val | Arg |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Glu | Gln | Tyr | Val | Glu | Arg | Ile | Lys | Lys | Phe | Arg | Cys | Pro | Gln | Thr | Asn |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Leu | Ile | Gln | Ala | Tyr | Lys | Met | Ile | Leu | Arg | Ala | Leu | Arg | Glu | Ser | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Ala | Arg | Asn | Pro | Leu | Lys | Ser | Gly | Thr | Ile | Gln | Tyr | Leu | His | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Gly | Asn | Glu | Arg | Pro | Asp | Ile | Glu | Pro | Glu | Ser | Gly | Tyr | Phe | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Gln | Ala | Glu | Ile | Ile | Thr | Ile | Val | Gly | Met | Ser | Gly | Ser | Gly | Lys |
| | | 130 | | | | | 135 | | | | | 140 | | | |
| Thr | Thr | Met | Ile | Glu | Gln | Val | Met | Asp | His | Phe | Pro | Gln | Ile | Ile | Glu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| His | Ser | Ser | Tyr | Lys | Gly | Val | Phe | Pro | Gly | Phe | Ser | Lys | Gln | Ile | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Trp | Val | Lys | Ile | Asn | Cys | Pro | Tyr | Asn | Ser | Ser | Val | Arg | Asp | Leu | Cys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Glu | Ile | Leu | Gln | Lys | Leu | Asp | Asp | Ala | Ile | Gly | Ile | Glu | Arg | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Glu | Ile | Arg | Asn | Gly | Ala | Leu | Ala | Arg | Gln | Ile | Ala | Gln | Arg |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Lys | Ser | Ser | Phe | Leu | Gly | Ile | Leu | Val | Ile | Asp | Glu | Met | Gln | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Leu | Lys | Phe | Ser | Arg | Thr | Gly | Gly | Glu | Ser | Lys | Leu | Ile | Asp | Phe | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| His | Glu | Ile | Val | Asp | Ser | Met | Gly | Val | Ser | Met | Val | Phe | Cys | Gly | Asn |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| His | Pro | Phe | Asp | Glu | Thr | Leu | Thr | Lys | Lys | Met | Arg | Ile | Ala | Arg | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ala | Glu | Ser | Gly | Gly | Tyr | Met | Lys | Ile | Lys | Asn | Val | Arg | Tyr | Asp | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Asp | Trp | Gln | Ser | Phe | Ile | His | Tyr | Leu | Trp | | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 8001

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| Lys | Thr | Thr | Arg | Val | Ile | Ser | Trp | Thr | Ala | Gly | Ile | Phe | Leu | Leu | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Val | Val | Leu | Ile | Ile | Ile | Ile | Ala | Thr | Phe | Asp | Trp | Asn | Arg | Leu |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Lys | Pro | Thr | Ile | Asn | Gln | Lys | Val | Ser | Thr | Glu | Leu | Asn | Arg | Pro | Phe |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Ala | Ile | Arg | Gly | Asp | Leu | Gly | Val | Val | Trp | Glu | Arg | Gln | Lys | Glu | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Gly | Trp | Arg | Ser | Trp | Val | Pro | Trp | Pro | His | Val | His | Ala | Asp | Asp |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ile | Ile | Leu | Gly | Asn | Pro | Pro | Asp | Ile | Pro | Glu | Val | Thr | Met | Ile | His |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Pro | Arg | Val | Glu | Ala | Thr | Leu | Ala | Pro | Leu | Ala | Leu | Leu | Thr | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Val | Tyr | Leu | Pro | Trp | Ile | Lys | Leu | Gln | Gln | Pro | Asp | Ala | Arg | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ile | Arg | Leu | Ser | Glu | Lys | Asn | Asn | Asn | Trp | Thr | Phe | Asp | Leu | Ala | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Gly | Asp | Lys | Asp | Gln | Asn | Ala | Gln | Pro | Ser | Ser | Trp | Ser | Phe | Arg |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Asp | Asn | Ile | Leu | Phe | Asp | Arg | Gly | Arg | Ile | Ala | Ile | Asp | Asp | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Ser | Lys | Ala | Asp | Val | Glu | Ile | Leu | Val | Asp | Pro | Leu | Gly | Lys | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Pro | Phe | Ser | Glu | Val | Thr | Gly | Ser | Lys | Ala | Lys | Gly | Asp | Asp | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Ala | Gly | Asp | Tyr | Val | Phe | Gly | Leu | Thr | Ala | Lys | Gly | Arg | Tyr | Asn |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Gln | Pro | Leu | Thr | Gly | Lys | Gly | Lys | Ile | Gly | Gly | Met | Leu | Ala | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Ser | Glu | Gly | Thr | Pro | Phe | Pro | Val | Gln | Ala | Asp | Phe | Arg | Ser | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Asn | Thr | Arg | Val | Ala | Phe | Val | Gly | Thr | Val | Asn | Asp | Pro | Met | Asn | Met |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Gly | Gly | Val | Asp | Leu | Gln | Leu | Lys | Phe | Ala | Gly | Asp | Ser | Leu | Gly | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Tyr | Asp | Leu | Thr | Gly | Val | Leu | Leu | Pro | Asp | Thr | Pro | Pro | Phe | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |

Thr Asp Gly His Leu Val Ala Lys Ile Asn Thr Glu Lys Ser Ser Val
 325 330 335
 Phe Asp Tyr Arg Gly Phe Asn Gly Arg Ile Gly Asp Ser Asp Ile His
 340 345 350
 Gly Thr Leu Thr Tyr Thr Thr Gly Lys Pro Arg Pro Lys Leu Glu Gly
 355 360 365
 Asp Val Glu Ser Arg Gln Leu Arg Leu Ala Asp Leu Gly Pro Leu Ile
 370 375 380
 Gly Val Asp Ser Gly Lys Gly Thr Lys Ser Lys Glu Val Lys Lys Asp
 385 390 395 400
 Val Gln Pro Ala Gly Lys Val Leu Pro Tyr Asp Arg Phe Glu Thr Asp
 405 410 415
 Lys Trp Asp Val Met Asp Ala Asp Val Arg Phe Lys Gly Arg Lys Ile
 420 425 430
 Glu His Gly Ser Thr Leu Pro Leu Ser Asn Leu Ser Thr His Ile Ile
 435 440 445
 Leu Lys Asn Ala Asp Leu Arg Leu Gln Pro Leu Lys Phe Gly Met Ala
 450 455 460
 Gly Gly Thr Ile Ser Ser Asn Ile His Leu Glu Gly Asp Lys Lys Pro
 465 470 475 480
 Met Gln Gly Arg Ala Glu Ile Gln Ala Arg Arg Leu Lys Leu Lys Glu
 485 490 495
 Leu Met Pro Asp Val Glu Leu Met Gln Lys Thr Leu Gly Glu Met Asn
 500 505 510
 Gly Asp Ala Asp Ile Arg Gly Thr Gly Asn Ser Val Ala Ala Leu Leu
 515 520 525
 Gly Ser Gly Asn Gly Asn Leu Lys Leu Leu Met Asn Asp Gly Leu Val
 530 535 540
 Ser Arg Asn Leu Met Glu Ile Leu Gly Leu Asn Val Gly Asn Phe Ile
 545 550 555 560
 Ile Gly Gln Ile Phe Gly Asp Asp Glu Val Arg Val Asn Cys Ala Ala
 565 570 575
 Ala Asn Leu Asp Leu Val Asn Gly Val Ala Arg Pro Gln Ile Phe Ala
 580 585 590
 Phe Asp Thr Glu Asn Ala Val Ile Asn Val Thr Gly Thr Ala Ser Met
 595 600 605
 Ala Ser Glu Gln Leu Asp Leu Thr Ile Asp Pro Glu Ser Lys Gly Ile
 610 615 620
 Arg Ile Ile Thr Leu Arg Ser Pro Leu Tyr Val Arg Gly Thr Phe Lys
 625 630 635 640
 Asp Pro Gln Ala Gly Val Lys Ala Gly Pro Leu Ile Ala Arg Gly Ala
 645 650 655
 Val Ala Ala Ala Leu Ala Thr Leu Val Thr Pro Ala Ala Ala Leu Leu
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 Leu Ser Gln Met Lys Lys
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<210> 8002

<211> 567

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (554)

<400> 8002

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| | | | | | | | | | | | | | | | |
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| Asp | Leu | Leu | Ala | Glu | Gly | Leu | Tyr | Arg | Val | Leu | Asp | Phe | Asp | Arg | Lys |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Asp | Leu | Leu | Ile | Leu | Phe | Lys | Ile | Lys | Ser | Glu | Arg | Thr | Gly | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Ile | Pro | Phe | Ser | Phe | Ser | Met | Phe | Lys | Tyr | Tyr | Ile | Glu | Ser | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ile | Thr | Cys | Lys | Asp | Tyr | Ile | Tyr | Pro | Ser | Tyr | Met | Leu | Val | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Lys | Glu | Leu | Thr | Asp | Lys | Asp | Arg | Gly | Arg | Arg | Asp | Glu | Asn | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Ile | Ile | Lys | Asp | Leu | Val | Asp | Asp | Arg | Met | Phe | Leu | Phe | Asp | Tyr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Leu | His | Lys | Lys | Ser | His | Leu | Leu | Met | Asp | Tyr | Ser | Arg | Asn | Lys |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Lys | Ile | Ser | Gln | Tyr | Thr | Ile | Arg | Thr | Leu | Leu | Ala | Leu | Tyr | Trp | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Gly | Gln | Asp | Ile | Tyr | Ala | Leu | Leu | Pro | Ala | Phe | Ser | Asn | Cys | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ala | Gly | Lys | Ser | Arg | Ile | Lys | His | Glu | Ile | Lys | Leu | Gly | Asn | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Lys | Lys | Asn | Arg | Ala | Leu | Pro | Asn | Glu | Arg | Ser | Arg | Val | Phe | Ile | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asn | Glu | Arg | Asp | Ile | Asn | Asn | Ile | Arg | Lys | Ser | Leu | Ile | Thr | Tyr | His |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Tyr | Lys | Val | Asn | Gly | Asp | Thr | Ile | Lys | Lys | Thr | Leu | Glu | Arg | His | Ile |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Leu | Tyr | Phe | Arg | Asp | Glu | Ile | Lys | Thr | Ala | Asn | Leu | Glu | Asn | Arg |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Pro | Tyr | Val | Pro | Ser | Leu | Lys | Gln | Phe | Ser | Tyr | Trp | Asn | Lys | Lys |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Phe | Thr | Lys | Asp | Phe | Ser | Ile | Asn | Lys | Lys | Asn | Thr | Lys | Lys | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ile | Asp | Leu | Lys | Met | Arg | Ala | Leu | Leu | Gly | Ser | Val | Ala | Asn | Thr | Thr |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Val | Leu | Pro | Gly | Asp | Val | Phe | Glu | Ile | Asp | Ser | Thr | Val | Ala | Asp | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Leu | Ile | Ser | Ser | Leu | Asn | Arg | Arg | Lys | Val | Ile | Gly | Arg | Pro | Thr |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Tyr | Thr | Val | Val | Asp | Arg | Ala | Thr | Arg | Met | Ile | Val | Gly | Leu | His |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Val | Ser | Leu | Tyr | His | Ala | Ser | Trp | Arg | Ala | Ala | Arg | Gln | Ala | Leu | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asn | Cys | Phe | Met | Pro | Lys | Lys | Glu | Tyr | Cys | Arg | Leu | Phe | Gly | Ile | Ser |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ile | Thr | Asp | Asp | Asp | Trp | Pro | Cys | Ser | His | Ile | Pro | Leu | Thr | Leu | Met |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Cys | Asp | Asn | Gly | Glu | Met | Ile | Gly | Leu | Lys | Pro | Gln | Glu | Glu | Met | Thr |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Pro | Leu | Thr | Lys | Leu | Glu | Phe | Ala | Pro | Val | Gly | Arg | Gly | Asp | Arg | Lys |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Ser | Ile | Val | Glu | Arg | Cys | Phe | Gly | Ile | Leu | Asn | Asp | Glu | Val | Ile | His |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Arg | Leu | Ile | Gly | Thr | Thr | Arg | Arg | Gly | Lys | Ile | Val | Lys | Gly | Glu | Pro |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Thr | Pro | Gln | Ser | Arg | Ala | Cys | Leu | Thr | Ile | Gln | Glu | Val | Thr | Ser | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Leu | Ile | Arg | Glu | Ile | Leu | Ala | His | Asn | Gln | Arg | Thr | Tyr | Glu | Glu | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Tyr | Ile | Asn | Pro | Leu | Leu | Ile | Glu | Asn | Asp | Leu | Val | Ile | Ser | Pro |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Lys | Asn | Ser | Trp | Met | Ile | Ser | Leu | Lys | His | Gly | Arg | Phe | Ser | Ala | Arg |


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<210> 8003
<211> 502
<212> PRT
<213> Enterobacter cloacae
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|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg 1 | Pro | Met | Leu | His 5 | Leu | Phe | Ala | Gly | Leu 10 | Asp | Leu | His | Thr | Gly 15 | Leu |
| Leu | Leu | Leu | Leu 20 | Ala | Leu | Val | Phe | Val 25 | Leu | Phe | Tyr | Glu 30 | Ala | Ile | Asn |
| Gly | Phe | His 35 | Asp | Thr | Ala | Asn | Ala 40 | Val | Ala | Thr | Val | Ile 45 | Tyr | Thr | Arg |
| Ala | Met 50 | Arg | Ser | Gln | Leu | Ala 55 | Val | Val | Met | Ala 60 | Ala | Val | Phe | Asn | Phe |
| Phe 65 | Gly | Val | Leu | Leu | Gly 70 | Gly | Leu | Ser | Val 75 | Ala | Tyr | Ala | Ile | Val | His 80 |
| Met | Leu | Pro | Thr | Asp 85 | Leu | Leu | Leu | Asn | Val 90 | Ser | Ser | Gly | His | Gly 95 | Leu |
| Ala | Met | Val | Phe 100 | Ser | Met | Leu | Leu | Ala 105 | Ala | Ile | Ile | Trp | Asn | Leu | Gly |
| Thr | Trp | Tyr 115 | Phe | Gly | Leu | Pro | Ala 120 | Ser | Ser | Ser | His | Thr | Leu | Ile | Gly |
| Ala | Ile 130 | Ile | Gly | Ile | Gly | Leu 135 | Thr | Asn | Ala | Leu | Met 140 | Thr | Gly | Thr | Ser |
| Val 145 | Val | Asp | Ala | Leu | Asn 150 | Ile | Pro | Lys | Val 155 | Leu | Gly | Ile | Phe | Gly | Ser 160 |
| Leu | Ile | Ile | Ser | Pro 165 | Ile | Val | Gly | Leu | Val 170 | Val | Ala | Gly | Gly | Leu | Ile 175 |
| Phe | Ile | Leu | Arg 180 | Arg | Tyr | Trp | Ser | Asn 185 | Thr | Lys | Lys | Arg | Ala 190 | Arg | Ile |
| His | Leu | Thr 195 | Pro | Ala | Glu | Arg | Glu 200 | Lys | Lys | Asp | Gly | Lys 205 | Lys | Lys | Pro |
| Pro | Phe 210 | Trp | Thr | Arg | Ile | Ala 215 | Leu | Ile | Ile | Ser | Ala 220 | Ile | Gly | Val | Ala |
| Phe 225 | Ser | His | Gly | Ala | Asn 230 | Asp | Gly | Gln | Lys | Gly 235 | Ile | Gly | Leu | Val | Met 240 |
| Leu | Val | Leu | Ile | Gly 245 | Val | Ala | Pro | Ala | Gly 250 | Phe | Val | Val | Asn | Met 255 | Asn |
| Ala | Ser | Gly | Tyr 260 | Glu | Ile | Thr | Arg | Thr 265 | Arg | Asp | Ala | Val | Asn | Asn | Val |
| Glu | Thr | Tyr 275 | Phe | Gln | Gln | His | Pro 280 | Asp | Leu | Leu | Lys | Lys 285 | Ala | Thr | Gly |
| Val | Asp 290 | Gln | Leu | Ile | Pro | Ser 295 | Pro | Glu | Ser | Gly | Ala 300 | Thr | Thr | Ala | Pro |
| Gly 305 | Glu | Phe | His | Cys 310 | His | Pro | Ala | Asn | Ala 315 | Ile | Asn | Ala | Leu | Glu | Arg 320 |
| Ala | Lys | Gly | Met | Leu 325 | Ala | Asp | Ile | Glu | Ser 330 | Tyr | Asp | Lys | Leu | Ala 335 | Val |
| Glu | Gln | Arg | Gly 340 | Gln | Leu | Arg | Arg | Ile 345 | Met | Leu | Cys | Ile | Ser | Asp | Val |
| Thr | Asp | Lys | Val | Ala | Lys | Leu | Pro | Glu | Val | Asn | Ala | Asp | Asp | Gln | Arg |


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<210> 8004
<211> 481
<212> PRT
<213> Enterobacter cloacae
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|------------|------------|------------|------------|------------|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala 1 | Gly | Ser | Cys | Arg 5 | Ser | Asn | Arg | Ser | His 10 | Arg | Trp | Lys | Leu | Leu 15 | Ile |
| Ser | Gly | Ile | Gln 20 | Ser | Arg | Gln | Phe | Thr 25 | Ile | Lys | Asp | Asn | Ala 30 | Met | Thr |
| Lys | His | Tyr 35 | Asp | Tyr | Ile | Ala | Ile 40 | Gly | Gly | Gly | Ser | Gly 45 | Gly | Ile | Ala |
| Ser | Ile 50 | Asn | Arg | Ala | Ala | Met 55 | Tyr | Gly | Gln | Lys | Cys 60 | Ala | Leu | Ile | Glu |
| Ala 65 | Lys | Glu | Leu | Gly 70 | Gly | Thr | Cys | Val | Asn 75 | Val | Gly | Cys | Val | Pro | Lys 80 |
| Lys | Val | Met | Trp 85 | His | Ala | Ala | Gln | Ile | Arg 90 | Glu | Ala | Ile | His | Met 95 | Tyr |
| Gly | Pro | Asp | Tyr 100 | Gly | Phe | Asp | Thr | Thr 105 | Ile | Asn | His | Phe | Asp 110 | Trp | Asp |
| Lys | Leu | Ile 115 | Ala | Ser | Arg | Thr | Ala 120 | Tyr | Ile | Asp | Arg | Ile 125 | His | Thr | Ser |
| Tyr | Asp 130 | Asn | Val | Leu | Gly | Lys 135 | Asn | Asn | Val | Asp | Val 140 | Ile | Arg | Gly | Phe |
| Ala 145 | Arg | Phe | Val | Asp 150 | Ala | Lys | Thr | Ile | Glu 155 | Val | Asn | Gly | Glu | Thr | Ile 160 |
| Thr | Ala | Asp | His 165 | Ile | Leu | Ile | Ala | Thr | Gly 170 | Gly | Arg | Pro | Ser | His 175 | Pro |
| His | Ile | Pro | Gly 180 | Ala | Glu | Tyr | Gly | Ile 185 | Asp | Ser | Asp | Gly | Phe 190 | Phe | Glu |
| Leu | Pro | Ala 195 | Leu | Pro | Glu | Arg | Val 200 | Ala | Ile | Val | Gly | Ala 205 | Gly | Tyr | Ile |
| Ala 210 | Val | Glu | Leu | Ala | Gly | Val 215 | Ile | Asn | Gly | Leu | Gly 220 | Ala | Glu | Ala | His |
| Leu 225 | Phe | Val | Arg | Lys 230 | His | Ala | Pro | Leu | Arg | Ser 235 | Phe | Asp | Pro | Leu | Ile 240 |
| Val | Asp | Thr | Leu 245 | Val | Glu | Val | Met | Asn | Ala 250 | Glu | Gly | Pro | Thr | Leu 255 | His |
| Thr | Asn | Ala | Val 260 | Pro | Lys | Ala | Val | Val 265 | Lys | Asn | Ala | Asp | Gly 270 | Ser | Leu |
| Thr | Leu | Glu | Leu | Glu | Asp | Gly | Arg | Ser | Gln | Thr | Val | Asp | Cys | Leu | Ile |


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<210> 8005
<211> 444
<212> PRT
<213> Enterobacter cloacae
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| Glu 1 | Asn | Ile | Met | Gln 5 | Ala | Thr | Ala | Thr | Thr 10 | Leu | Asn | Glu | Gly | Ala 15 | Glu |
| His | Val | Pro | Val | Asn 20 | Ser | Arg | Asn 25 | Lys | Val | Val | Val | Ala 30 | Ser | Leu | Ile |
| Gly | Thr | Ala 35 | Ile | Glu | Phe | Phe | Asp 40 | Phe | Tyr | Ile | Tyr | Ala 45 | Thr | Ala | Ala |
| Val | Ile 50 | Val | Phe | Pro | His | Ile 55 | Phe | Phe | Pro | Gln | Gly 60 | Asp | Pro | Thr | Ala |
| Ala 65 | Thr | Leu | Gln | Ser | Leu 70 | Ala | Thr | Phe | Ala | Ile 75 | Ala | Phe | Val | Ala | Arg |
| Pro | Ile | Gly | Ser | Ala 85 | Val | Phe | Gly | His | Phe 90 | Gly | Asp | Arg | Val | Gly 95 | Arg |
| Lys | Val | Thr | Leu 100 | Val | Ala | Ser | Leu | Leu 105 | Thr | Met | Gly | Ile | Ser | Thr | Val |
| Ala | Ile | Gly 115 | Leu | Leu | Pro | Thr | Tyr 120 | Glu | Thr | Ile | Gly | Ile 125 | Leu | Ala | Pro |
| Val | Leu 130 | Leu | Ala | Leu | Ala | Arg | Phe 135 | Gly | Gln | Gly | Leu 140 | Gly | Leu | Gly | Gly |
| Glu 145 | Trp | Gly | Gly | Ala | Ala 150 | Leu | Leu | Ala | Thr | Glu | Asn | Ala | Pro | Ala | Arg |
| Lys | Arg | Ala | Leu | Tyr 165 | Gly | Ser | Phe | Pro | Gln 170 | Leu | Gly | Ala | Pro | Ile | Gly |
| Phe | Phe | Phe | Ala 180 | Asn | Gly | Thr | Phe | Leu 185 | Leu | Leu | Ser | Trp | Leu | Leu | Thr |
| Asp | Glu | Gln 195 | Phe | Met | Ser | Trp | Gly 200 | Trp | Arg | Ile | Pro | Phe | Val | Phe | Ser |
| Ala | Val | Leu | Val | Leu | Ile | Gly | Leu | Tyr | Val | Arg | Val | Ser | Leu | His | Glu |

| | | | | |
|---------------------|-------------------------|-------------------------|---------|-----|
| 210 | | 215 | | 220 |
| Thr Pro Val Phe Ala | Lys Val Ala Ala Ala | Lys Gln Val Lys Val | | |
| 225 | 230 | 235 | 240 | |
| Pro Leu Gly Thr | Leu Thr Arg His | Leu Arg Val Thr Val | Leu Gly | |
| | 245 | 250 | 255 | |
| Thr Phe Ile Met | Leu Ala Thr Tyr Thr | Leu Phe Tyr Ile Met | Thr Val | |
| | 260 | 265 | 270 | |
| Tyr Ser Met Thr | Phe Ser Thr Ala Ala Ala | Pro Val Gly Leu Gly Leu | | |
| | 275 | 280 | 285 | |
| Pro Arg Asn Glu | Val Leu Trp Met Leu Met | Met Ala Val Ile Gly Phe | | |
| | 290 | 295 | 300 | |
| Gly Val Met Val | Pro Ile Ala Gly Leu Leu | Ala Asp Lys Phe Gly Arg | | |
| 305 | 310 | 315 | 320 | |
| Arg Ser Ser Met | Ile Val Ile Thr Ser | Leu Ile Ile Leu Phe Ala | Leu | |
| | 325 | 330 | 335 | |
| Phe Val Phe Pro | Pro Leu Leu Gly Ser | Gly Ser Pro Ala Leu Val | Met | |
| | 340 | 345 | 350 | |
| Ala Tyr Leu Leu | Ile Gly Leu Ser Leu Met | Gly Leu Thr Phe Gly Pro | | |
| | 355 | 360 | 365 | |
| Met Gly Ala Leu | Leu Pro Glu Leu Phe Pro | Thr Glu Val Arg Tyr Thr | | |
| | 370 | 375 | 380 | |
| Gly Ala Ser Phe | Ser Tyr Asn Val Ser Ser | Ile Leu Gly Ala Ser Val | | |
| 385 | 390 | 395 | 400 | |
| Ala Pro Tyr Ile | Ala Thr Trp Leu Gln Ala | Asn Tyr Gly Leu Phe Tyr | | |
| | 405 | 410 | 415 | |
| Val Gly Val Tyr | Leu Ala Ala Met Ala | Ala Leu Thr Leu Ile Ala | Leu | |
| | 420 | 425 | 430 | |
| Leu Leu Thr His | Glu Thr Lys His | Gln Ala Leu | | |
| | 435 | 440 | | |

<210> 8006

<211> 151

<212> PRT

<213> Enterobacter cloacae

<400> 8006

| | |
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| Leu Ser Pro Glu Ser Lys Val Leu Val Asp Lys Ala Val Ser Met Ala | |
| | 20 25 30 |
| Arg Pro Tyr Asn Ala Lys Val Ser Leu Ile His Val Asp Val Asn Tyr | |
| | 35 40 45 |
| Ser Asp Leu Tyr Thr Gly Leu Ile Asp Val Asn Leu Gly Asp Met Gln | |
| | 50 55 60 |
| Lys Arg Ile Ser Glu Glu Thr His His Ala Leu Ser Glu Leu Ser Thr | |
| 65 | 70 75 80 |
| Asn Ala Gly Tyr Pro Ile Thr Glu Thr Leu Ser Gly Ser Gly Asp Leu | |
| | 85 90 95 |
| Gly Gln Val Leu Val Asp Ala Ile Lys Lys Tyr Asp Met Asp Leu Val | |
| | 100 105 110 |
| Val Cys Gly His His Gln Asp Phe Trp Ser Lys Leu Met Ser Ser Ala | |
| | 115 120 125 |
| Arg Gln Leu Ile Asn Thr Val His Val Asp Met Leu Ile Val Pro Leu | |
| | 130 135 140 |
| Arg Asp Glu Glu Asp Glu | |
| 145 | 150 |

<210> 8007

<211> 569

<212> PRT

<213> Enterobacter cloacae

<400> 8007

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| Lys | Ile | Ala | Gly | Lys | Asn | Pro | Tyr | Leu | Leu | Arg | Gln | Lys | Pro | Glu | Val |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Leu | Asn | Thr | Met | Phe | Asn | Gln | Lys | Leu | Gln | Thr | Ala | Glu | Asp | Ile | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Phe | Asp | Ile | Ala | Glu | Glu | Leu | Arg | Tyr | Glu | Thr | Asp | Pro | Cys | Glu | Leu |
| | | | 35 | | | | | 40 | | | | | 45 | | |
| Lys | Leu | Asp | Glu | Met | Ile | Glu | Ala | Glu | Pro | Glu | Pro | Glu | Met | Ile | Glu |
| | | | 50 | | | | | 55 | | | | | 60 | | |
| Gly | Leu | Pro | Ala | Ser | Asp | Ala | Leu | Thr | Pro | Ala | Asp | Arg | Tyr | Leu | Glu |
| 65 | | | | | | | | | | | | | | | 80 |
| Leu | Phe | Glu | His | Val | Gln | Ser | Ser | Arg | Leu | Phe | Ala | Asp | Ser | Lys | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Pro | Asp | Cys | Ala | Pro | Lys | Met | Asp | Pro | Leu | Asp | Ile | Leu | Ile | Arg |
| | | | 100 | | | | | 105 | | | | | | 110 | |
| Tyr | Arg | Lys | Val | Arg | Arg | His | Arg | Asp | Phe | Asp | Leu | Ala | Arg | Phe | Val |
| | | | 115 | | | | | 120 | | | | | | 125 | |
| Lys | Asn | His | Phe | Trp | Leu | Pro | Glu | Asp | Tyr | Ser | Lys | Glu | Tyr | Val | Ser |
| | | | 130 | | | | | 135 | | | | | | 140 | |
| Asp | Pro | Gly | Leu | Ser | Leu | Lys | Glu | His | Ile | Asp | Asn | Leu | Trp | Pro | Val |
| 145 | | | | | | | | 150 | | | | | | | 160 |
| Leu | Thr | Arg | Glu | Pro | Gln | Asp | His | Ile | Pro | Trp | Ser | Ser | Leu | Leu | Ala |
| | | | | 165 | | | | | 170 | | | | | | 175 |
| Leu | Pro | Gln | Ala | Tyr | Ile | Val | Pro | Gly | Gly | Arg | Phe | Ser | Glu | Thr | Tyr |
| | | | 180 | | | | | 185 | | | | | | 190 | |
| Tyr | Trp | Asp | Ser | Tyr | Phe | Ser | Met | Leu | Gly | Leu | Ala | Glu | Ser | Gly | Arg |
| | | | 195 | | | | | 200 | | | | | | 205 | |
| Asn | Asp | Leu | Leu | Lys | Cys | Met | Ala | Asp | Asn | Phe | Ala | Trp | Leu | Ile | Glu |
| | | | 210 | | | | | 215 | | | | | | 220 | |
| Arg | Tyr | Gly | His | Ile | Pro | Asn | Gly | Asn | Arg | Thr | Tyr | Tyr | Leu | Ser | Arg |
| 225 | | | | | | | | 230 | | | | | | | 240 |
| Ser | Gln | Pro | Pro | Val | Phe | Ala | Leu | Met | Val | Glu | Leu | Phe | Glu | Glu | Asp |
| | | | | 245 | | | | | 250 | | | | | | 255 |
| Gly | Val | Arg | Gly | Ala | Lys | Arg | Tyr | Leu | Glu | His | Leu | Lys | Met | Glu | Tyr |
| | | | 260 | | | | | 265 | | | | | | 270 | |
| Ala | Phe | Trp | Met | Asp | Gly | Ala | Glu | Ser | Leu | Leu | Leu | Asn | Gln | Ala | Tyr |
| | | | 275 | | | | | 280 | | | | | | 285 | |
| Arg | Ser | Ala | Val | Arg | Met | Pro | Asp | Gly | Ser | Leu | Leu | Asn | Arg | Tyr | Trp |
| | | | 290 | | | | | 295 | | | | | | 300 | |
| Asp | Asp | Arg | Asp | Thr | Pro | Arg | Asp | Glu | Ser | Trp | Ile | Glu | Asp | Val | Glu |
| 305 | | | | | | | | 310 | | | | | | | 320 |
| Thr | Ala | Arg | His | Ser | Gly | Arg | Pro | Pro | Asn | Glu | Val | Tyr | Arg | Asp | Leu |
| | | | | 325 | | | | | 330 | | | | | | 335 |
| Arg | Ala | Gly | Ala | Ala | Ser | Gly | Trp | Asp | Tyr | Ser | Ser | Arg | Trp | Leu | Arg |
| | | | 340 | | | | | 345 | | | | | | 350 | |
| Asp | Pro | Ala | Arg | Leu | Ala | Ser | Ile | Arg | Thr | Thr | Gln | Phe | Ile | Pro | Ile |
| | | | 355 | | | | | 360 | | | | | | 365 | |
| Asp | Leu | Asn | Ala | Phe | Leu | Phe | Lys | Leu | Glu | Ser | Ala | Ile | Ala | Asn | Ile |
| | | | 370 | | | | | 375 | | | | | | 380 | |
| Ser | Ala | Ser | Lys | Gly | Asp | Lys | Glu | Thr | Ala | Asp | Leu | Phe | Arg | Gln | Lys |
| 385 | | | | | | | | 390 | | | | | | | 400 |
| Ala | Ser | Asp | Arg | Arg | Ala | Ala | Val | Asn | Arg | Tyr | Leu | Trp | Asp | Glu | Glu |
| | | | | 405 | | | | | 410 | | | | | | 415 |
| Asn | Gly | Cys | Tyr | Arg | Asp | Tyr | Asp | Trp | Arg | Arg | Glu | Ala | Leu | Ala | Leu |
| | | | 420 | | | | | 425 | | | | | | 430 | |
| Phe | Ser | Ala | Ala | Ser | Ile | Val | Pro | Leu | Tyr | Val | Gly | Met | Ala | Thr | His |
| | | | 435 | | | | | 440 | | | | | | 445 | |
| Glu | Gln | Ala | Glu | Arg | Leu | Ser | Asp | Ala | Val | Lys | Ala | Arg | Leu | Leu | Thr |
| | | | 450 | | | | | 455 | | | | | | 460 | |
| Pro | Gly | Gly | Ile | Leu | Ala | Thr | Glu | Tyr | Glu | Thr | Gly | Glu | Gln | Trp | Asp |

465 470 475 480
 Lys Pro Asn Gly Trp Ala Pro Leu Gln Trp Met Ala Ile Gln Gly Phe
 485 490 495
 Lys Gln Tyr Gly Asn Asp Ser Leu Gly Asp Glu Ile Ala Trp Ser Trp
 500 505 510
 Leu His Thr Val Asn His Tyr Tyr Lys Thr His His Lys Leu Ile Glu
 515 520 525
 Lys Tyr His Ile Ala Ser Ser Thr Pro Arg Glu Gly Gly Gly Gly Glu
 530 535 540
 Tyr Pro Leu Gln Asp Gly Phe Gly Trp Thr Asn Gly Val Val Arg Arg
 545 550 555 560
 Leu Ile Gly Leu Tyr Gly Glu Pro
 565

<210> 8008

<211> 117

<212> PRT

<213> Enterobacter cloacae

<400> 8008

Glu Glu Thr Leu Met Thr Gly Tyr Ala Met Gln Ile Ser Ser Ala Ala
 1 5 10 15
 Ile Ala Leu Ile Lys Lys Gln Gln Gly Leu Ser Leu Glu Lys Tyr Arg
 20 25 30
 Asp Glu Lys Gly Ile Trp Val Ile Gly Tyr Gly His Val Ile Arg Gln
 35 40 45
 Trp Glu Lys Phe Asn Gly Leu Ile Thr Pro Thr Glu Ala Glu Asn Leu
 50 55 60
 Leu Cys Asn Asp Ile Gln Leu Cys Glu Ala Leu Arg Glu Met Asn
 65 70 75 80
 Lys Arg Pro Leu Thr Gln Gln Gln His Asp Ala Leu Ile Leu Thr Leu
 85 90 95
 Phe Ser Phe Gly Glu Glu Ser Pro Leu Pro Glu Lys Ile Leu Gln Ala
 100 105 110
 Val Ala Arg Val
 115

<210> 8009

<211> 225

<212> PRT

<213> Enterobacter cloacae

<400> 8009

Pro Leu Pro Ser Gly Ala Cys Val Tyr Gly Val Ala Tyr Arg Thr His
 1 5 10 15
 Lys Arg Leu Arg Gly Leu Val Ala Ser Tyr Asn Ser Val Thr Ser Ser
 20 25 30
 Ser Thr Lys Arg Lys Met Arg Val Thr Pro Glu Asn Asn Pro Gln Arg
 35 40 45
 Pro Thr Gln His Leu Asp Tyr Glu Pro Ile Lys Lys Met Asp Asn Glu
 50 55 60
 Pro Glu Ala Pro Lys Glu Pro Gly Thr Ala Ser Lys Ala Leu Gly Thr
 65 70 75 80
 Val Thr Gly Ile Ala Glu Lys Ile Gln Gln Ile Pro Ala Ile Ala His
 85 90 95
 Leu Ile Arg Ala Ala Glu Arg Phe Asn Asp Arg Met Gly Asn Gln Phe
 100 105 110
 Gly Ala Ala Ile Thr Tyr Phe Ser Phe Leu Ser Met Ile Pro Ile Leu
 115 120 125
 Met Val Ser Phe Ala Ala Ala Gly Phe Val Leu Ala Ser His Pro Thr
 130 135 140

Leu Leu Gln Asp Ile Phe Asn Lys Ile Leu Thr Asn Val Ser Asp Gln
 145 150 155 160
 Thr Leu Ala Thr Thr Leu Lys Ser Thr Ile Asn Thr Ala Val Gln Gln
 165 170 175
 Arg Thr Thr Val Gly Ile Val Gly Leu Leu Ile Ala Leu Tyr Ser Gly
 180 185 190
 Val Asn Trp Met Gly Asn Leu Arg Glu Ala Ile Arg Ala Gln Ser Arg
 195 200 205
 Asp Val Trp Glu Arg Arg Pro Gln Asp Gln Glu Lys Ile Trp Val Lys
 210 215 220

225

<210> 8010

<211> 156

<212> PRT

<213> Enterobacter cloacae

<400> 8010

Leu Arg Asp Phe Ile Ser Leu Ile Gly Leu Leu Val Ala Leu Val Ile
 1 5 10 15
 Thr Leu Ser Ile Thr Ser Val Ala Gly Ser Ala Gln Gln Met Ile Ile
 20 25 30
 Ser Ala Leu Tyr Leu Asp Tyr Ile Glu Trp Leu Lys Pro Ala Trp Arg
 35 40 45
 Gly Ile Gly Leu Ala Ile Ser Ile Phe Ala Asn Tyr Leu Leu Phe Phe
 50 55 60
 Trp Ile Phe Trp Arg Leu Pro Arg His Arg Pro Arg Lys Lys Ala Leu
 65 70 75 80
 Ile Arg Gly Thr Leu Ile Ala Ala Ile Gly Phe Glu Val Ile Lys Ile
 85 90 95
 Val Met Thr Tyr Thr Leu Pro Ser Leu Val Lys Ser Pro Ser Gly Ala
 100 105 110
 Ala Phe Gly Ser Val Leu Gly Leu Met Ala Phe Phe Tyr Phe Phe Ala
 115 120 125
 Arg Leu Thr Leu Phe Cys Ala Ala Trp Ile Ala Thr Ala Glu Tyr Lys
 130 135 140
 Asp Asp Pro Arg Met Pro Gly Lys Thr His Arg
 145 150 155

<210> 8011

<211> 294

<212> PRT

<213> Enterobacter cloacae

<400> 8011

Thr Val Ala Asn Arg Gln Phe Ser Gly Ile Ser Leu Pro Met Leu Ser
 1 5 10 15
 Tyr Arg His Ser Phe His Ala Gly Asn His Ala Asp Val Leu Lys His
 20 25 30
 Thr Val Gln Ser Leu Ile Ile Glu Ser Leu Lys Glu Lys Asp Lys Pro
 35 40 45
 Phe Leu Tyr Leu Asp Thr His Ala Gly Ala Gly Arg Tyr Gln Leu Ser
 50 55 60
 Gly Glu His Ala Glu Arg Thr Gly Glu Tyr Leu Glu Gly Ile Ala Arg
 65 70 75 80
 Ile Trp Gln Gln Asp Leu Pro Ala Glu Leu Glu Pro Tyr Ile Gly
 85 90 95
 Val Val Asn His Phe Asn Arg Asn Gly Gln Leu Arg Tyr Tyr Pro Gly
 100 105 110
 Ser Pro Leu Ile Ala Arg Gln Leu Leu Arg Glu Gln Asp Ser Leu Gln


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      115      120      125
Leu Thr Glu Leu His Pro Ser Asp Phe Pro Leu Leu Arg Ser Glu Phe
  130      135      140
Gln Lys Asp Asn Arg Ala Arg Val Asp Lys Ala Asp Gly Tyr Gln Gln
  145      150      155      160
Leu Lys Ala Lys Leu Pro Pro Val Ser Arg Arg Gly Leu Val Leu Ile
      165      170      175
Asp Pro Pro Tyr Glu Ile Lys Thr Asp Tyr Gln Ala Val Val Thr Gly
      180      185      190
Ile Asn Glu Gly Tyr Lys Arg Phe Ala Thr Gly Thr Tyr Ala Leu Trp
      195      200      205
Tyr Pro Val Val Leu Arg Ala Gln Ile Lys Arg Met Ile Lys Asp Leu
      210      215      220
Glu Ala Thr Gly Ile Arg Lys Ile Leu Gln Ile Glu Leu Ala Val Arg
  225      230      235      240
Pro Asp Ser Asp Gln Arg Gly Met Thr Ala Ser Gly Met Ile Val Ile
      245      250      255
Asn Pro Pro Trp Lys Leu Glu Ala Gln Met Asn Asn Val Leu Pro Trp
      260      265      270
Leu His Lys Thr Leu Val Pro Ala Gly Thr Gly His Ala Thr Val Ser
      275      280      285
Trp Ile Val Pro Glu
      290

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<210> 8012

<211> 191

<212> PRT

<213> Enterobacter cloacae

<400> 8012

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Gln Pro Tyr Asn His Leu Gln Cys Leu Arg Arg Ile Val Met Pro Ala
  1      5      10      15
Leu Thr Thr Ala Arg Leu Thr Cys Ser Pro Leu Gln Glu Gln Asp Trp
      20      25      30
Pro Phe Phe Leu Ser Leu Gln Gln Asn Pro Glu Val Met Arg Phe Val
      35      40      45
Ala Pro Ala Arg Ser Glu Ala Asp Ile Arg Glu Ala Phe Glu Ser Arg
      50      55      60
Leu Leu Pro Trp Thr Pro Gly Ser Ser His Trp Leu Cys Leu Met Val
  65      70      75      80
Arg Glu Thr Ala Ser Gln Thr Pro Leu Gly Val Thr Gly Tyr Val His
      85      90      95
Arg Glu Ala Asp Cys Ala Glu Val Gly Phe Leu Phe Ala Pro Ser Ala
      100      105      110
Gln Gly Lys Gly Tyr Gly Phe Glu Ser Leu Arg Ala Val Cys Asp Phe
      115      120      125
Ala Leu Thr Gln Gly Asn Ile Arg Arg Leu Thr Ala Thr Val Thr Ala
      130      135      140
Gly Asn Ile Ala Ser Arg Arg Leu Leu Glu Lys Thr Gly Phe Gln Leu
  145      150      155      160
Glu Gly Glu Leu Arg Glu Ser Tyr Phe Leu Ser Gly Gln Trp His Asn
      165      170      175
Asp Trp Leu Phe Gly Leu Leu Lys Lys Glu Phe Pro Phe Ser
      180      185      190

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<210> 8013

<211> 303

<212> PRT

<213> Enterobacter cloacae

<400> 8013

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Ser | Met | Asp | Lys | Ile | His | Ala | Met | Gln | Leu | Phe | Leu | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Glu | Leu | Glu | Ser | Phe | Ser | Arg | Ala | Ala | Glu | Thr | Leu | Ser | Leu | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Gly | Ser | Val | Ser | Arg | Gln | Ile | Gln | Ala | Leu | Glu | Asn | Ala | Leu | Gly |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Thr | Gln | Leu | Leu | His | Arg | Thr | Thr | Arg | Arg | Val | Ser | Leu | Thr | Gln | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Met | Val | Tyr | Tyr | Glu | Arg | Ala | Lys | Asp | Leu | Leu | Met | Asn | Leu | Asp |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Glu | Leu | Asp | Gly | Met | Phe | Leu | His | Asp | Pro | Ser | Thr | Ile | Ser | Gly | Arg |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Leu | Arg | Val | Asp | Met | Pro | Val | Ala | Ile | Ala | Arg | Asn | Val | Val | Ile | Pro |
| | | | 100 | | | | 105 | | | | | 110 | | | |
| Lys | Leu | Pro | Ala | Phe | Leu | Gln | Gln | Phe | Pro | Gly | Ile | Glu | Leu | Glu | Leu |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Ser | Ser | Ser | Asp | Arg | Leu | Val | Asp | Val | Ile | Arg | Glu | Gly | Phe | Asp | Cys |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Val | Val | Arg | Val | Gly | Asn | Leu | Lys | Asp | Ser | Gly | Leu | Ile | Ala | Arg | Pro |
| 145 | | | | 150 | | | | 155 | | | | | | 160 | |
| Leu | Gly | Lys | Leu | Ser | Val | Ile | Asn | Cys | Ala | Ser | Pro | Asp | Tyr | Leu | Thr |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Arg | Phe | Gly | Tyr | Pro | Glu | Thr | Leu | Asp | Asp | Leu | Ala | Ser | His | Ala | Leu |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ile | His | Tyr | Ser | Ala | Thr | Leu | Gly | Thr | Arg | Pro | Gln | Gly | Phe | Glu | Tyr |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Tyr | Asn | Gly | Ser | Ala | Thr | Arg | Trp | Val | Lys | Thr | Gly | Gly | Val | Leu | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Asn | Ser | Thr | Glu | Thr | Tyr | Gln | Ala | Ala | Cys | Ile | Ala | Gly | Leu | Gly |
| 225 | | | | 230 | | | | 235 | | | | | | 240 | |
| Ile | Ile | Gln | Val | Pro | Arg | Val | Gly | Val | Arg | Asp | Ala | Leu | Arg | Thr | Lys |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Lys | Leu | Val | Glu | Ile | Leu | Pro | Gln | Tyr | Arg | Ala | Glu | Pro | Met | Pro | Val |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ser | Leu | Ile | Tyr | Pro | His | Arg | Arg | Asn | Leu | Ser | Arg | Arg | Val | His | Val |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Phe | Met | Glu | Trp | Leu | Thr | Glu | Leu | Thr | Lys | Gly | Tyr | Val | Asp | | |
| | 290 | | | | | 295 | | | | | 300 | | | | |

<210> 8014

<211> 330

<212> PRT

<213> Enterobacter cloacae

<400> 8014

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Thr | Ile | Lys | Asn | Thr | Gln | Arg | Thr | Leu | Pro | Leu | Ile | Thr | Leu | Phe |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Phe | Thr | Thr | Met | Ser | Lys | Lys | Ile | Ala | Val | Ile | Gly | Glu | Cys | Met |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Glu | Leu | Ser | Gln | Lys | Gly | Ala | Glu | Val | Ser | Arg | Gly | Phe | Gly | Gly |
| | 35 | | | | | 40 | | | | | | 45 | | | |
| Asp | Thr | Leu | Asn | Thr | Ser | Val | Tyr | Ile | Ala | Arg | Gln | Val | Ser | Pro | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Leu | Ser | Val | Ser | Tyr | Val | Thr | Ala | Leu | Gly | Thr | Asp | Ser | Phe | Ser |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | |
| Gln | Gln | Met | Leu | Glu | Ala | Trp | Gln | Gly | Glu | Asn | Val | Gly | Thr | Ser | Leu |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ile | Gln | Arg | Met | Glu | Asn | Arg | Leu | Pro | Gly | Leu | Tyr | Tyr | Ile | Glu | Thr |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Asp | Ser | Thr | Gly | Glu | Arg | Thr | Phe | Tyr | Tyr | Trp | Arg | Asn | Glu | Ala | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Ala Lys Phe Trp Leu Glu Ser Glu Ala Ala Ala Ala Ile Cys Glu Glu
 130 135 140
 Leu Ala Thr Phe Asp Tyr Leu Tyr Leu Ser Gly Ile Ser Leu Ala Ile
 145 150 155 160
 Leu Ser Gln Glu Ser Arg Glu Lys Leu Leu Ser Leu Leu Arg Glu Cys
 165 170 175
 Arg Ala Asn Gly Gly Lys Val Ile Phe Asp Asn Asn Tyr Arg Pro Arg
 180 185 190
 Leu Trp Ala Ser Arg Glu Glu Thr Gln Gln Val Tyr Gln Gln Met Leu
 195 200 205
 Glu Cys Thr Asp Ile Ala Phe Leu Thr Leu Asp Asp Glu Asp Ala Leu
 210 215 220
 Trp Gly Glu Lys Pro Val Asp Glu Val Ile Ala Arg Thr Gln Ala Ala
 225 230 235 240
 Gly Val Ser Glu Val Val Ile Lys Arg Gly Ala Glu Ser Cys Leu Val
 245 250 255
 Ala Val Ala Gly Glu Ala Val Thr Glu Val Pro Ala Val Lys Leu Ala
 260 265 270
 Lys Glu Lys Val Ile Asp Thr Thr Ala Ala Gly Asp Ser Phe Ser Ala
 275 280 285
 Gly Tyr Leu Ala Val Arg Leu Thr Gly Gly Thr Pro Glu Ala Ala Ala
 290 295 300
 Gln Arg Gly His Leu Thr Ala Ser Thr Val Ile Gln Tyr Arg Gly Ala
 305 310 315 320
 Ile Ile Pro Arg Glu Ala Met Pro Ala
 325 330

<210> 8015
 <211> 106
 <212> PRT
 <213> Enterobacter cloacae

<400> 8015
 Lys Leu Leu Gln Pro Gln Gln Gly Arg Gln Val Glu Val Val Ala Arg
 1 5 10 15
 Phe Val Gln Lys Gln Gln Ile Arg Ile Ala Tyr Gln Arg Pro Arg Gln
 20 25 30
 Gln Gln Pro Arg Met Leu Thr Ala Ala Gln Arg Gly Gly Leu Gln Arg
 35 40 45
 Arg Phe Leu Arg Arg Lys Ala His Ser Gly Gln Gln Arg Leu Gly Leu
 50 55 60
 Pro Ala Lys Thr Val Ala Leu Thr Gly Arg Gln Leu Arg Gln His Arg
 65 70 75 80
 Ile Gln His Gly Gln Gly Ile Lys Gly Leu Arg Gln Met Leu Phe His
 85 90 95
 Ala Arg Gln Gln Ala Met Ser Ser Gln
 100 105

<210> 8016
 <211> 234
 <212> PRT
 <213> Enterobacter cloacae

<400> 8016
 His Cys Ser Ser Ile Glu Val Phe Asp Ala Leu Val Ile Leu Ser Val
 1 5 10 15
 Leu Leu Trp Val Pro Asp Ile His Asp Thr Thr Thr Thr Arg Leu Thr
 20 25 30
 Glu Gln Phe His Phe Leu Lys Lys Pro Glu Pro Trp Leu Ile Phe Ala
 35 40 45
 Ala Thr Met Phe Gly Asn Ala Gly Val Phe Ala Trp Phe Ser Phe Val

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Lys Pro Phe Met Val Asn Val Ser Gly Phe Ser Glu Gly Val Met Thr | | |
| 65 | 70 | 75 |
| Ala Ile Met Met Leu Met Gly Leu Gly Met Val Leu Gly Asn Val Phe | | |
| | 85 | 90 |
| Ser Gly Lys Leu Ser Ser Arg Phe Ser Pro Leu Arg Ile Ala Ala Thr | | |
| | 100 | 105 |
| Thr Asp Leu Val Ile Val Ala Ser Leu Leu Ala Leu Phe Ala Phe Gly | | |
| | 115 | 120 |
| Glu Leu Lys Thr Ala Ser Leu Val Met Gly Phe Val Cys Cys Ala Gly | | |
| | 130 | 135 |
| Leu Phe Ala Leu Ser Ala Pro Leu Gln Ile Leu Leu Gln Asn Ala | | |
| 145 | 150 | 155 |
| Lys Gly Gly Glu Met Leu Gly Ala Ala Gly Gly Gln Met Ala Phe Asn | | |
| | 165 | 170 |
| Leu Gly Ser Ala Ile Gly Ala Tyr Phe Gly Gly Met Met Ile Thr Leu | | |
| | 180 | 185 |
| Gly Phe Ser Trp Ser Tyr Val Thr Leu Pro Ala Ala Ile Leu Ser Phe | | |
| | 195 | 200 |
| Ser Ala Met Thr Ser Leu Leu Met Tyr Gly Tyr Leu Cys Ala Lys Lys | | |
| 210 | 215 | 220 |
| Arg Gln Ala Asn Ala Gly Ala Leu Ala | | |
| 225 | 230 | |

<210> 8017

<211> 303

<212> PRT

<213> Enterobacter cloacae

<400> 8017

| | | |
|---|-----|-----|
| Ile Glu Gln Met Glu Val Lys Met Asp Arg Val Ile Ala Ala Gln Val | | |
| 1 | 5 | 10 |
| Tyr Asn Arg Ile Cys Glu Leu Gly Ser Leu Ser Ala Ala Ala Arg Ala | | |
| | 20 | 25 |
| Leu Gly Ile Ser Arg Pro Met Val Ser Arg Tyr Leu Glu Gln Met Glu | | |
| | 35 | 40 |
| Lys Trp Ala Gly Ala Arg Leu Val Asn Arg Ser Thr Arg Lys Leu Thr | | |
| | 50 | 55 |
| Leu Thr Ala Ala Gly Glu Lys Val Leu Gln Lys Thr Arg Thr Leu Ser | | |
| 65 | 70 | 75 |
| Gln Ile Ser Gln Glu Ile Glu Asp Gln Ser Val Lys Asp Leu Pro Ser | | |
| | 85 | 90 |
| Gly Thr Leu Arg Val Ala Cys Ala His Phe Thr Ala Met His Ile Ile | | |
| | 100 | 105 |
| Val Pro Val Leu Pro Asp Leu Leu Gln Arg Tyr Pro Gln Leu Arg Ile | | |
| | 115 | 120 |
| Glu Leu Asp Val Asn Asn His Pro Val Ser Leu Val Gly Glu Arg Ile | | |
| | 130 | 135 |
| Asp Val Ala Ile Arg Ile Thr Asp Asn Pro Glu Pro Gly Met Ile Ala | | |
| 145 | 150 | 155 |
| Arg Arg Leu Gly Glu Cys Arg Ser Val Leu Cys Ala Ser Pro His Tyr | | |
| | 165 | 170 |
| Leu Ala Ser Arg Gly Val Pro Val Gln Leu Glu Asp Leu Ser Arg His | | |
| | 180 | 185 |
| Asn Cys Leu His Tyr Ser Phe Phe Ala Gly Gln Ser Trp Arg Phe Leu | | |
| | 195 | 200 |
| Thr Pro Glu Gly Glu Ser Val Thr Thr Ala Val Ser Gly Asn Leu Ser | | |
| | 210 | 215 |
| Ala Ser Ile Ser Ser Leu Leu Met Glu Ala Ala Ile Asn His Cys Gly | | |
| 225 | 230 | 235 |
| Ile Ala Met Leu Pro Glu Arg Glu Ala Asp Ala Ala Leu Arg Gln Gly | | |

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| | | | | 245 | | | | | 250 | | | | | 255 | | | | | |
| Ser | Leu | Val | Pro | Val | Leu | Gly | Ala | Phe | Thr | Pro | Lys | Pro | Ile | Gly | Ile | | | | |
| | | | 260 | | | | | 265 | | | | | | 270 | | | | | |
| Phe | Gly | Ile | Tyr | Gln | Ser | Arg | Asp | Tyr | Gln | Pro | Ala | Ala | Gln | Arg | Val | | | | |
| | | 275 | | | | | 280 | | | | | | 285 | | | | | | |
| Phe | Leu | Asp | Ala | Leu | Ala | Asn | His | Leu | Ala | Thr | Arg | Ser | Asp | | | | | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | | | |

<210> 8018

<211> 149

<212> PRT

<213> Enterobacter cloacae

<400> 8018

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Ala | Lys | Arg | Arg | Ala | Arg | Met | Thr | Ile | His | Lys | His | Gly | Ser | Ala | His | | | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | | | |
| Trp | Ser | Gly | Asp | Ile | Lys | Arg | Gly | Lys | Gly | Thr | Val | Ser | Thr | Glu | Ser | | | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | | | |
| Gly | Val | Leu | Asn | Gln | Gln | Pro | Tyr | Gly | Phe | Asn | Thr | Arg | Phe | Glu | Gly | | | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | | | |
| Glu | Lys | Gly | Thr | Asn | Pro | Glu | Glu | Leu | Ile | Gly | Ala | Ala | His | Ala | Ala | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | |
| Cys | Phe | Ser | Met | Ala | Leu | Ser | Leu | Met | Leu | Gly | Glu | Ala | Gly | Tyr | Thr | | | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | | | | |
| Ala | Asp | Ser | Ile | Asp | Thr | Thr | Ala | Asp | Val | Ser | Leu | Asp | Lys | Thr | Asp | | | | |
| | | | | 85 | | | | 90 | | | | | 95 | | | | | | |
| Ser | Gly | Phe | Ala | Ile | Ser | Lys | Val | Ala | Leu | Gln | Ser | Lys | Val | Thr | Val | | | | |
| | | 100 | | | | | 105 | | | | | 110 | | | | | | | |
| Pro | Gly | Ile | Asp | Pro | Gln | Gln | Phe | Asp | Gly | Ile | Ile | Gln | Lys | Ala | Lys | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Ala | Gly | Cys | Pro | Val | Ser | Gln | Leu | Leu | Lys | Ala | Glu | Ile | Thr | Leu | Asp | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | |
| Tyr | Lys | Leu | Asn | | | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | | | | | |

<210> 8019

<211> 265

<212> PRT

<213> Enterobacter cloacae

<400> 8019

| | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|
| Arg | Gly | Gln | Thr | Leu | Leu | Phe | Tyr | Ile | Thr | Thr | Lys | Val | Met | Ser | Met | | | | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | | | | |
| Asn | Thr | Thr | Leu | Ala | Gly | Lys | Ile | Ala | Leu | Val | Thr | Gly | Gly | Ser | Thr | | | | |
| | | 20 | | | | | | 25 | | | | | 30 | | | | | | |
| Gly | Ile | Gly | Leu | Ala | Thr | Ala | Gln | Glu | Leu | Ala | Ala | Gln | Gly | Ala | Lys | | | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | | | |
| Val | Tyr | Ile | Thr | Gly | Arg | Arg | Gln | Ala | Glu | Leu | Asp | Ala | Ala | Arg | Ala | | | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | | | |
| Asp | Ile | Gly | Ala | Ala | Ala | Val | Ala | Ile | Arg | Ala | Asp | Val | Ser | Arg | Met | | | | |
| 65 | | | 70 | | | | | 75 | | | | | | 80 | | | | | |
| Ala | Asp | Leu | Asp | Ala | Val | Tyr | Ala | Gln | Ile | Ala | Lys | Glu | Glu | Gly | Arg | | | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | | | |
| Leu | Asp | Ile | Leu | Phe | Ala | Asn | Ala | Gly | Gly | Gly | Asp | Met | Leu | Pro | Leu | | | | |
| | | 100 | | | | | 105 | | | | | 110 | | | | | | | |
| Gly | Ala | Ile | Thr | Glu | Glu | Gln | Phe | Asp | Arg | Ile | Phe | Ala | Thr | Asn | Val | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| Arg | Gly | Val | Leu | Phe | Thr | Val | Gln | Lys | Ala | Leu | Pro | Leu | Leu | Ser | Ser | | | | |
| | 130 | | | | | 135 | | | | | 140 | | | | | | | | |
| Gly | Ser | Ser | Ile | Ile | Leu | Thr | Gly | Ser | Thr | Val | Ser | Ile | Lys | Gly | Thr | | | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | | | |

Ala Asn Phe Ser Val Tyr Ser Ala Ser Lys Ala Ala Val Arg Asn Phe
 165 170 175
 Ala Arg Ser Trp Ala Leu Asp Leu Gln Gly Arg Gly Ile Arg Val Asn
 180 185 190
 Val Val Ser Pro Gly Pro Val Lys Thr Pro Gly Leu Gly Asp Leu Val
 195 200 205
 Pro Glu Glu Gln Arg Gln Gly Leu Tyr Asp Ala Leu Ala Ala Gln Val
 210 215 220
 Pro Leu Gly Arg Leu Gly Ala Pro Gly Glu Val Gly Lys Ala Val Ala
 225 230 235 240
 Phe Leu Ala Ser Asp Ala Ala Ser Phe Ile Asn Ala Thr Glu Leu Phe
 245 250 255
 Val Asp Gly Gly Met Ala Gln Ile
 260 265

<210> 8020

<211> 126

<212> PRT

<213> Enterobacter cloacae

<400> 8020

His Pro Val Pro Ala Arg Arg Gln Ala Ser Arg Cys Pro Ser Ser Pro
 1 5 10 15
 Ser Val Ala Pro Gly Asp Pro Ala Ser Gly Tyr Gly Thr Pro Pro Ile
 20 25 30
 Lys Cys Pro Ala Ala Arg Gln Ser Pro Gly Pro Ala Ala Lys Ser Arg
 35 40 45
 Arg Pro Val Pro Ala Trp Arg Gly Lys Arg Leu Ser Asn Leu Pro Gln
 50 55 60
 Arg Gly Asp Arg Cys Glu Trp Met Cys Pro Asp Arg His Ala Pro Ala
 65 70 75 80
 Pro Leu His Ser Gly Gln Thr Glu Tyr Arg Ala Val Asp Pro Ala Pro
 85 90 95
 Ala Ala Gly Gly Cys Pro Ala Arg Phe His Arg Trp Arg Gly His Arg
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 Pro Ala Gly Gly Pro Asp Arg Arg Gly Ser Gly Val Lys
 115 120 125

<210> 8021

<211> 502

<212> PRT

<213> Enterobacter cloacae

<400> 8021

Lys Leu Trp Gly Lys Lys Arg Glu Pro Tyr Met Ala Asn Leu Pro Trp
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 Arg Val Ser Val Arg Leu Met Ala Leu Ala Lys Lys Ile Ala Met Val
 20 25 30
 Ile Gly Ile Ile Val Leu Val Leu Leu Ser Val Arg Val Tyr Leu Ser
 35 40 45
 Gln Gln Gly Pro Ala Leu His His Trp His Thr Trp Arg Ala Asp Glu
 50 55 60
 Met Ser Val Gln Glu Met Asp Asn Ala Thr Phe Ala Ala Tyr Val Ala
 65 70 75 80
 Arg Glu Asn Ala Ile Phe Thr Ala Leu Asp Ala Glu Val Thr Ala Lys
 85 90 95
 Val Pro Pro Ala Glu Arg Thr Pro Leu Asn Arg Tyr Tyr Arg Gln Ser
 100 105 110
 Leu Val Trp Pro Gly His Phe Ser Pro Asp Ala Asn Arg Ser Phe Val
 115 120 125
 Leu Met Pro Ala Gly Lys Pro Arg Gly Gly Val Val Leu Leu His Gly

| | | |
|-------------------------|-------------------------|-------------------------|
| 130 | 135 | 140 |
| Leu Thr Asp Ser Pro Tyr | Ser Val Arg His Leu | Ala Glu Asn Tyr Gln |
| 145 | 150 | 155 |
| Gln His Gly Phe Val | Ala Val Val Pro Arg | Leu Pro Gly His Gly Thr |
| 165 | 170 | 175 |
| Ala Pro Gly Ala Leu Thr | Asp Val Asp Trp Glu Ala | Trp Leu Ala Ala |
| 180 | 185 | 190 |
| Thr Arg Leu Ala Val Arg | Glu Ala Thr Arg Leu Thr | Gly Asn Asp Leu |
| 195 | 200 | 205 |
| Pro Leu His Leu Val Gly | Tyr Ser Asn Gly Gly Ala | Leu Ala Met Lys |
| 210 | 215 | 220 |
| Tyr Ala Leu Asp Ala Leu | Asp Ala Pro Ala Leu Arg | Gln Pro Glu Gln |
| 225 | 230 | 235 |
| Ile Val Leu Leu Ser Pro | Met Ile Gly Val Thr Ala | Phe Ala Arg Phe |
| 245 | 250 | 255 |
| Ala Gly Phe Ala Gly Leu | Pro Ala Met Leu Pro Ala | Phe Ala Lys Ala |
| 260 | 265 | 270 |
| Ala Trp Leu Asn Ile Ser | Pro Glu Tyr Asn Pro Tyr | Lys Tyr Asn Ser |
| 275 | 280 | 285 |
| Phe Pro Val Asn Ala Ala | Arg Gln Ser Trp Leu Leu | Thr Gln Ala Leu |
| 290 | 295 | 300 |
| His Glu Gln Ile Asn Arg | Gly Val His Asp His Lys | Leu Ala Gln Leu |
| 305 | 310 | 315 |
| Pro Pro Ile Leu Ala Phe | Gln Ser Val Met Asp Ser | Thr Val Ser Thr |
| 325 | 330 | 335 |
| Arg Ala Val Val Ser Gly | Leu Phe Asp Gln Leu Pro | Ala Asn Gly Ser |
| 340 | 345 | 350 |
| Glu Leu Val Val Phe Asp | Ile Asn Gln Ala Gly Ser | Phe Arg Pro Leu |
| 355 | 360 | 365 |
| Phe Arg Pro Ser Ser Trp | Thr Ala Val Ala Asp Leu | Leu Pro Glu Ala |
| 370 | 375 | 380 |
| Lys Arg Arg Tyr Ser Val | Thr Ile Val Thr Asn Ala | Ser Pro Asp Arg |
| 385 | 390 | 395 |
| Phe Asp Met Val Ala Lys | Lys Thr Pro Ala Gly Ser | Thr Arg Glu Thr |
| 405 | 410 | 415 |
| Val Met Pro Leu Ser Val | Ala Tyr Pro Gln Glu Val | Tyr Ser Leu Ser |
| 420 | 425 | 430 |
| His Val Ala Ile Pro Phe | Pro Gln Asp Asp Asp Leu | Tyr Gly Arg His |
| 435 | 440 | 445 |
| Pro Ala Val Lys Asn Arg | Tyr Gly Ile Ser Leu Gly | Thr Ile Ala Leu |
| 450 | 455 | 460 |
| Trp Gly Glu Thr Ser Val | Leu Ser Val Gly Lys Asp | Ala Leu Met Arg |
| 465 | 470 | 475 |
| Val Thr Ser Asn Pro Phe | Tyr Asp Tyr Met Gln Thr | Arg Ile Asp Ser |
| 485 | 490 | 495 |
| Arg Ile Gly Asp Asn | | |
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<210> 8022

<211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 8022

| | | |
|-------------------------|---------------------|---------------------|
| Val Thr Pro Gly Asn Cys | Val Lys Gln Tyr Arg | Ser Gly Val Tyr Pro |
| 1 | 5 | 10 |
| Ile Pro Asp Pro Val Ser | Val Leu Thr Thr Leu | Ile Tyr Arg Ser Gln |
| 20 | 25 | 30 |
| Leu Ser Leu Thr Cys Thr | Ser Ala Ala Leu Ser | Ala Leu Val Glu Gln |
| 35 | 40 | 45 |
| Ala Arg Ile Arg Asn Thr | Glu Gln Gly Ile Ser | Gly Ile Leu Leu Ser |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Arg Gly Arg Asp Val Leu Gln Ile Leu Glu Gly Thr Glu Gln Arg Val | | |
| 65 | 70 | 75 |
| Val Ala Leu Phe Asn Ser Ile Arg Ala Asp Asp Arg His Thr Gly Val | | 80 |
| | 85 | 90 |
| Val Glu Leu Met Arg Asp Tyr Gly Pro Arg Arg Arg Phe Glu Asp Val | | 95 |
| | 100 | 105 |
| Gly Met Leu Leu Phe Asp Leu Asp Val Gln Thr Pro Lys Ala Val Leu | | 110 |
| | 115 | 120 |
| Ala Ser Val Leu His Tyr Ser Lys Leu Glu Ser Tyr Leu Thr Ser Glu | | 125 |
| | 130 | 135 |
| Glu Arg Val Phe Lys Phe Ile Gln Thr Phe Ile Thr Gly Lys Thr Ala | | 140 |
| 145 | 150 | 155 |
| Ile Pro Pro Ala Ser Asp Tyr Glu Pro Asp Lys Trp Thr Leu Ser Arg | | 160 |
| | 165 | 170 |
| Glu Arg Ala Pro Phe Gly Lys Gly Leu Gly Leu Leu Ala Gly Gln Pro | | 175 |
| | 180 | 185 |
| Cys Gln Phe Ala Leu Gln Pro Ile Val Glu Pro Ser Glu Gly Lys Ile | | 190 |
| | 195 | 200 |
| Ser Ser Leu Glu Ala Leu Ile Arg Gly Asn Asp Gly Gly Ser Pro Glu | | 205 |
| | 210 | 215 |
| His Phe Phe Arg Ser Leu Asp Arg Glu Leu Ile Tyr Glu Val Asp Leu | | 220 |
| 225 | 230 | 235 |
| Gln Thr Lys Ala Trp Thr Phe Ala Leu Ala Gln Lys Leu Gly Ile Gly | | 240 |
| | 245 | 250 |
| Ser His Lys Leu Ala Val Asn Leu Leu Pro Met Ser Leu Val Asn Val | | 255 |
| | 260 | 265 |
| Pro Gly Ala Val Glu Phe Leu Val Thr Gln Ile Lys Lys His Asn Leu | | 270 |
| | 275 | 280 |
| Gln Pro Glu Gln Val Ile Ile Glu Val Thr Glu Asn Glu Met Ile Ser | | 285 |
| | 290 | 295 |
| Gly Phe Asn Gln Phe Asn Ser Ala Ile Lys Gln Leu Arg Ala Glu Gly | | 300 |
| 305 | 310 | 315 |
| Val Gly Leu Ala Ile Asp Asp Phe Gly Ser Gly Tyr Ala Gly Leu Ser | | 320 |
| | 325 | 330 |
| Leu Leu Thr Arg Phe Gln Pro Asp Lys Leu Lys Ile Asp Arg Glu Ile | | 335 |
| | 340 | 345 |
| Val Ser Asp Ile His Leu Ser Gly Pro Lys Gln Ala Ile Val Lys Ser | | 350 |
| | 355 | 360 |
| Ile Ile Ser Cys Cys Thr Asp Leu Glu Ile Thr Leu Val Ala Glu Gly | | 365 |
| | 370 | 375 |
| Ile Glu Gln Ile Gly Ala Trp Cys Cys Ile Arg Pro Arg Gly Asp Gln | | 380 |
| 385 | 390 | 395 |
| Asn Arg Val Arg Arg | | 400 |
| | 405 | |

<210> 8023

<211> 171

<212> PRT

<213> Enterobacter cloacae

<400> 8023

| | |
|---|----|
| Ala Met Ala Phe Tyr Ser Ser Gly Val Glu Tyr Gly Ile His Ser Leu | |
| 1 | 5 |
| Met Cys Met Val Asp Ala Lys Gly Asn Glu Arg Glu Met Ser Val Arg | 10 |
| | 20 |
| Glu Met Ala Ala Leu Gln Gly Val Pro Tyr Asp Tyr Leu Gly Lys Ile | 25 |
| | 30 |
| Phe Thr Arg Leu Ser Arg Ala Gly Leu Val Ile Ser Thr Glu Gly Lys | 35 |
| | 40 |
| Gly Gly Gly Phe Arg Leu Ala Arg Pro Ala Glu Leu Ile Ser Val Leu | 45 |
| | 50 |
| | 55 |
| | 60 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Val | Ala | His | Ala | Ile | Asp | Gly | Glu | Lys | Asn | Met | Phe | Glu | Cys | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Val | Arg | Gln | Arg | Leu | Ala | Val | Phe | Asp | Glu | Thr | Pro | Pro | Ala | Trp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Cys | Asp | Gly | Pro | Cys | Gly | Val | Arg | Ser | Val | Met | Asp | Ser | Ala | Gln |
| | | 115 | | | | | 120 | | | | 125 | | | | |
| Gln | Arg | Met | Glu | Glu | Glu | Leu | Gly | Arg | His | Thr | Ile | Leu | Asp | Leu | Ala |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Arg | Lys | Met | Tyr | Arg | Lys | Ala | Pro | Asp | Thr | Phe | Gln | Ile | Glu | Val | Gln |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Glu | Trp | Ile | Ser | Asp | Arg | Arg | Ser | Ser | Thr | | | | | | |
| | | | | 165 | | | | | 170 | | | | | | |

<210> 8024

<211> 512

<212> PRT

<213> Enterobacter cloacae

<400> 8024

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Leu | Ala | Gly | Ser | Pro | Gly | Ala | Thr | Asp | Gly | Asp | Asp | Gly | His | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asp | Ala | Cys | Leu | Leu | Ala | Gly | Thr | Gly | Cys | Tyr | Arg | Ser | Val | Leu | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Thr | Ala | Asn | Ser | Ala | Arg | Arg | Arg | Gln | Ala | Gly | Arg | Leu | Ala | Arg |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ser | Ala | Arg | Pro | Arg | Tyr | Arg | Phe | Leu | Ser | Ala | Gly | Arg | Ser | Ala | Gly |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Gln | Arg | Arg | Gly | Val | Phe | Gln | Arg | Pro | Thr | Ala | Pro | Asp | Ser | Thr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Pro | Asp | Pro | Gly | Leu | Cys | Ala | Ser | Gly | Tyr | Cys | Gly | Ala | Ser | Gly |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Phe | Arg | Asp | Ala | Gly | Ala | Thr | Glu | Arg | Gly | Leu | Tyr | Ser | Tyr | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Pro | Arg | Glu | Arg | Val | Ala | Gly | Val | Val | His | Arg | Ala | Ala | Leu | Arg | Leu |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Thr | Gln | Arg | His | Asp | Pro | Leu | His | Tyr | Arg | Ala | Arg | Ala | Gly | Ala | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Ser | Ala | Val | Arg | Gly | Ser | Pro | Tyr | Arg | Asn | Arg | Val | Cys | Leu | Ala |
| 145 | | | | 150 | | | | | 155 | | | | | | 160 |
| Gly | Asn | Gly | Ser | Leu | Gly | Gly | Asp | Leu | His | Ser | Gly | Ala | Gly | Leu | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Cys | Arg | His | Gly | Leu | Arg | Gly | Arg | Gly | Ile | Ala | Gly | Leu | Cys | Leu | Arg |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Gln | Ser | Gly | Gly | Gly | Ser | Ala | Val | Ser | Val | Asp | Arg | Pro | Ala | Asn | Arg |
| | | 195 | | | | 200 | | | | | 205 | | | | |
| Ala | Arg | Arg | Cys | Arg | Met | Met | Leu | Thr | Gln | Glu | Thr | Pro | Val | Pro | Val |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Ser | Thr | Ala | Lys | Gln | Arg | Ile | Asn | Trp | Ala | Lys | Leu | Phe | Trp | Met | Leu |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Arg | Lys | Ser | Pro | Leu | Thr | Leu | Ile | Gly | Gly | Val | Ile | Met | Ile | Val | Met |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Leu | Leu | Leu | Met | Val | Val | Ser | Pro | Trp | Ile | Val | Pro | His | Asp | Pro | Asn |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Leu | Asp | Leu | Thr | Ala | Arg | Leu | Gln | Ala | Pro | Ser | Ala | Gln | His | Trp |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Phe | Gly | Thr | Asp | Glu | Val | Gly | Arg | Asp | Leu | Phe | Ser | Arg | Val | Leu | Val |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Gly | Ser | Gln | Gln | Ser | Ile | Thr | Ala | Gly | Leu | Ala | Val | Val | Val | Ile | Ala |
| 305 | | | | 310 | | | | 315 | | | | | | 320 | |
| Gly | Gly | Ile | Gly | Ser | Leu | Leu | Gly | Cys | Leu | Ser | Gly | Val | Leu | Gly | Gly |


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<210> 8025
<211> 329
<212> PRT
<213> Enterobacter cloacae
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| <400> 8025 | | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Phe | Pro | Arg | Ala | Gln | Lys | Ala | Asn | Arg | Leu | Pro | Ala | Gly | Thr | His | Asn | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Arg | Arg | Asp | Ala | Met | Ser | Glu | Val | Leu | Leu | Glu | Leu | Asp | Ser | Val | His | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Val | Asn | Phe | Pro | Ala | Arg | Lys | Asn | Trp | Leu | Gly | Arg | Val | Thr | Glu | Gln | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Val | His | Ala | Leu | Asn | Gly | Met | Asp | Leu | Arg | Ile | His | Arg | Gly | Glu | Thr | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Leu | Gly | Val | Val | Gly | Glu | Ser | Gly | Cys | Gly | Lys | Ser | Thr | Leu | Ala | Gln | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Leu | Met | Gly | Met | Leu | Lys | Pro | Ser | Thr | Gly | Ala | Cys | Gln | Arg | Ala | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Asn | Ala | Ala | Gly | Met | Gln | Met | Val | Phe | Gln | Asp | Pro | Leu | Ser | Ser | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Leu | Asp | Pro | Arg | Leu | Pro | Val | Trp | Arg | Ile | Ile | Thr | Glu | Pro | Val | Trp | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Ile | Gln | Gln | Arg | Arg | Ser | Glu | Arg | Glu | Arg | Arg | Gln | Leu | Ala | Glu | Thr | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Leu | Ala | Gln | Gln | Val | Gly | Ile | Arg | Ala | Glu | Tyr | Leu | Asp | Arg | Leu | Pro | |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | | |
| His | Ala | Phe | Ser | Gly | Gln | Arg | Gln | Arg | Ile | Ala | Ile | Ala | Arg | Ala | | |
| | | | | 165 | | | | | 170 | | | | 175 | | | |
| Leu | Ser | Ser | Asp | Pro | Asp | Ile | Ile | Val | Leu | Asp | Glu | Pro | Thr | Ser | Ala | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Leu | Asp | Ile | Ser | Val | Gln | Ala | Gln | Ile | Leu | Asn | Leu | Leu | Val | Ala | Leu | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Gln | Gln | Gln | Arg | Asn | Leu | Thr | Tyr | Val | Leu | Ile | Ser | His | Asn | Val | Ser | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Val | Val | Arg | His | Met | Ser | Asp | Arg | Val | Ala | Val | Met | Tyr | Leu | Gly | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | | |
| Ile | Val | Glu | Leu | Gly | Pro | Ala | Asp | Gln | Val | Leu | Ser | Gln | Pro | Arg | His | |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | | 245 | | | | | 250 | | | | 255 | | | | |
| Pro | Tyr | Thr | Gln | Leu | Leu | Leu | Asp | Ser | Val | Pro | Arg | Thr | Gly | Glu | Pro | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Leu | Asp | Glu | Asp | Leu | Ala | Leu | Arg | Lys | Thr | Asp | Leu | Pro | Gly | Asn | Arg | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| His | Leu | Pro | Val | Gly | Cys | Tyr | Phe | Arg | Asp | Arg | Cys | Pro | Leu | Ala | Met | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Gln | Gly | Cys | Glu | Arg | Pro | Gln | Pro | Leu | Gln | Pro | Ala | Ala | Glu | Gly | Arg | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Ser | Val | Arg | Cys | Trp | Arg | Asn | Arg | | | | | | | | | | |
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<210> 8026

<211> 307

<212> PRT

<213> Enterobacter cloacae

<400> 8026

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| Ser | Glu | Glu | Ile | Tyr | Val | Asp | Gln | Leu | Met | Ala | Met | Arg | Ala | Phe | Thr | | |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | | | |
| Arg | Val | Val | Glu | Ser | Gly | Ser | Phe | Thr | Arg | Ala | Ala | Asp | Ser | Leu | Asn | | |
| | | 20 | | | | | 25 | | | | | 30 | | | | | |
| Met | Pro | Ile | Ala | Thr | Leu | Ser | Lys | Leu | Val | Lys | Ser | Leu | Glu | Ala | His | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Leu | Glu | Thr | Arg | Leu | Leu | His | Arg | Thr | Thr | Arg | Arg | Val | Val | Thr | Thr | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Ala | Glu | Gly | Met | Glu | Tyr | Tyr | Glu | Lys | Ala | Leu | Arg | Val | Leu | Ile | Asp | | |
| 65 | | | | 70 | | | | 75 | | | | | | 80 | | | |
| Ile | Glu | Asp | Ile | Asp | Thr | Ala | Phe | Arg | Ala | Ser | Cys | Cys | Thr | Pro | Lys | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Gly | His | Leu | Arg | Ile | Asp | Val | Gly | Gly | Ser | Thr | Ala | Arg | Asp | Val | Leu | | |
| | | 100 | | | | | 105 | | | | | | 110 | | | | |
| Ile | Pro | Leu | Leu | Pro | Asp | Phe | Phe | Gln | Arg | Tyr | Pro | Asp | Leu | Arg | Ile | | |
| | 115 | | | | | 120 | | | | | | 125 | | | | | |
| Asn | Leu | Gly | Val | Ala | Asp | Arg | Pro | Val | Asp | Leu | Ile | Ser | Gly | Asn | Val | | |
| | 130 | | | | 135 | | | | | 140 | | | | | | | |
| Asp | Cys | Val | Ile | Arg | Gly | Gly | Pro | Leu | Asp | Asp | Ser | Ser | Leu | Ile | Ala | | |
| 145 | | | | 150 | | | | 155 | | | | | | 160 | | | |
| Arg | His | Ile | Gly | Asp | Ala | Gly | Met | Ile | Ala | Cys | Ala | Ala | Pro | Gly | Tyr | | |
| | | | 165 | | | | | 170 | | | | | | 175 | | | |
| Leu | Lys | Ala | His | Gly | Ile | Pro | Ala | Tyr | Pro | Gln | Glu | Leu | Arg | Asn | Gly | | |
| | 180 | | | | | 185 | | | | | | 190 | | | | | |
| His | Lys | Leu | Ile | Ser | Tyr | Leu | Ser | Pro | Val | Thr | Gly | Arg | Ala | Phe | Pro | | |
| | 195 | | | | | 200 | | | | | | 205 | | | | | |
| Phe | Arg | Phe | Leu | Asp | Arg | Gly | Glu | Pro | Leu | Glu | Ile | Ser | Val | Pro | His | | |
| | 210 | | | | 215 | | | | | 220 | | | | | | | |
| His | Leu | Gly | Val | Asn | Glu | Ser | Asn | Ala | His | Leu | Ala | Ala | Ala | Leu | Ala | | |
| 225 | | | | 230 | | | | | | 235 | | | | 240 | | | |
| Gly | Leu | Gly | Ile | Ile | Gln | Thr | Phe | Gly | Tyr | Ala | Ala | Arg | Ala | His | Leu | | |
| | | | 245 | | | | | 250 | | | | | | 255 | | | |
| Glu | Thr | Gly | Ala | Leu | Val | Glu | Ile | Leu | Ser | Asp | Trp | Arg | Pro | Lys | Ala | | |
| | 260 | | | | | 265 | | | | | | 270 | | | | | |
| Tyr | Pro | Phe | His | Val | Val | Tyr | Pro | Gln | Ser | Arg | His | Leu | Thr | His | Arg | | |
| | 275 | | | | | 280 | | | | | | 285 | | | | | |
| Leu | Arg | Val | Phe | Ile | Ala | Trp | Leu | Ala | Glu | Val | Phe | Pro | Ala | Ala | Val | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Lys | Gly | | | | | | | | | | | | | | | | |
| 305 | | | | | | | | | | | | | | | | | |

<210> 8027

<211> 595

<212> PRT

<213> Enterobacter cloacae

<400> 8027

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tyr | Gln | Pro | Thr | Ala | Pro | Arg | Ser | Thr | Gly | Gln | Lys | Asp | Asp | Lys | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Cys | Gln | Gly | Arg | Ile | Phe | Leu | Lys | Arg | Val | Ser | Asp | Met | Asp | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Leu | Lys | Lys | His | Arg | Ser | Leu | Tyr | Ile | Pro | Tyr | Ala | Gly | Pro | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Glu | Phe | Pro | Leu | Leu | Asn | Lys | Gly | Ser | Ala | Phe | Ser | Met | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Arg | Ser | Ser | Phe | Asn | Leu | Leu | Gly | Leu | Leu | Pro | Glu | Val | Val | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Thr | Ile | Glu | Glu | Gln | Ala | Glu | Arg | Ala | Trp | Ile | Gln | Tyr | Gln | Gly | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Thr | Glu | Ile | Asp | Lys | His | Ile | Tyr | Leu | Arg | Asn | Ile | Gln | Asp | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Glu | Thr | Leu | Phe | Tyr | Arg | Leu | Val | Gln | Asn | His | Leu | Glu | Glu | Met |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Pro | Val | Ile | Tyr | Thr | Pro | Thr | Val | Gly | Ala | Ala | Cys | Glu | Arg | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Glu | Ile | Tyr | Arg | Arg | Ser | Arg | Gly | Val | Phe | Ile | Ser | Tyr | Gln | Asn |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | His | Asn | Met | Asp | Asp | Ile | Leu | Gln | Asn | Val | Pro | Asn | His | Asn | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Lys | Val | Ile | Val | Val | Thr | Asp | Gly | Glu | Arg | Ile | Leu | Gly | Leu | Gly | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gln | Gly | Ile | Gly | Gly | Met | Gly | Ile | Pro | Ile | Gly | Lys | Leu | Ser | Leu | Tyr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Ala | Cys | Gly | Gly | Ile | Ser | Pro | Ala | Tyr | Thr | Leu | Pro | Val | Val | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Val | Gly | Thr | Asn | Asn | Gln | Gln | Leu | Leu | Asn | Asp | Pro | Leu | Tyr | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Trp | Arg | His | Pro | Arg | Ile | Thr | Asp | Asp | Glu | Tyr | Tyr | Gln | Phe | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Asp | Asp | Phe | Ile | Gln | Ala | Val | Lys | His | Arg | Trp | Pro | Asp | Val | Leu | Leu |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Gln | Phe | Glu | Asp | Phe | Ala | Gln | Lys | Asn | Ala | Met | Pro | Leu | Leu | Asn | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Tyr | Arg | Asp | Glu | Ile | Cys | Ser | Phe | Asn | Asp | Asp | Ile | Gln | Gly | Thr | Ala |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Val | Thr | Val | Gly | Thr | Leu | Ile | Ala | Ala | Ser | Arg | Ala | Ala | Gly | Ser |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gln | Leu | Ser | Tyr | Gln | Lys | Ile | Val | Phe | Leu | Gly | Ala | Gly | Ser | Ala | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Cys | Gly | Ile | Ala | Glu | Gln | Ile | Ile | Ala | Gln | Thr | Gln | Arg | Glu | Gly | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Glu | Glu | Leu | Ala | Arg | Ser | Arg | Val | Phe | Met | Val | Asp | Arg | Phe | Gly |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Leu | Thr | Asp | Gly | Met | Pro | Asn | Leu | Leu | Pro | Phe | Gln | Thr | Lys | Leu |
| | | 370 | | | | 375 | | | | | 380 | | | | |
| Val | Gln | Lys | Arg | Glu | Asn | Leu | Lys | Asn | Trp | Asp | Thr | Asp | Asn | Glu | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Ser | Leu | Leu | Asp | Val | Val | Arg | Asn | Val | Lys | Pro | Asp | Ile | Leu | Ile |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Gly | Val | Ser | Gly | Gln | Thr | Gly | Leu | Phe | Thr | Glu | Glu | Ile | Ile | Arg | Glu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Met | His | Lys | His | Cys | Glu | Arg | Pro | Ile | Val | Met | Pro | Leu | Ser | Asn | Pro |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Thr | Ser | Arg | Val | Glu | Ala | Thr | Pro | Gln | Asp | Ile | Ile | Ala | Trp | Thr | Glu |

450
 Gly Asn Ala Leu Val Ala Thr Gly Ser Pro Phe Asp Pro Val Val Trp
 465 470 475 480
 Lys Asp Lys Leu Tyr Pro Ile Ala Gln Cys Asn Asn Ser Tyr Ile Phe
 485 490 495
 Pro Gly Ile Gly Leu Gly Val Ile Ala Ser Gly Ala Ser Arg Ile Thr
 500 505 510
 Asp Glu Met Leu Met Ser Ala Ser Glu Thr Leu Ala Gly His Ser Pro
 515 520 525
 Leu Val Asn Asn Gly Glu Gly Leu Val Leu Pro Glu Leu Lys Asp Ile
 530 535 540
 His Lys Val Ser Arg Ala Ile Ala Phe Ala Val Gly Lys Met Ala Gln
 545 550 555 560
 Gln Gln Gly Val Ala Val Lys Thr Ser Ala Asp Ala Leu Gln Gln Ala
 565 570 575
 Ile Asp Asp Asn Phe Trp Met Pro Glu Tyr Arg Ser Tyr Arg Arg Thr
 580 585 590
 Ser Ile
 595

<210> 8028

<211> 572

<212> PRT

<213> Enterobacter cloacae

<400> 8028

Ala Thr Met Ser Thr Leu Leu Thr Ala His Ser Leu Arg Val Asp Thr
 1 5 10 15
 Ala Phe Gly Thr Leu Phe Asp Ser Leu Ser Phe Thr Leu Lys Gly
 20 25 30
 Asp Arg Ile Gly Leu Leu Gly Asp Asn Gly Cys Gly Lys Ser Thr Leu
 35 40 45
 Leu Lys Ile Leu Asp Gly Thr Gln Ser Pro Ala Ala Gly Thr Val Ser
 50 55 60
 Leu Ala Gly His Cys Leu Leu Ala Arg Val Glu Gln His Leu Pro Glu
 65 70 75 80
 Thr Leu Tyr Pro Leu Thr Met Leu Asp Ala Val Leu Ala Gln Leu Pro
 85 90 95
 Thr Gly Glu Arg Asp Ser Leu Arg Trp Lys Ala Glu Thr Leu Leu Ala
 100 105 110
 Gly Met Gly Phe Thr Thr Gln Glu Thr Ala Leu Gln Ser Ala Thr Leu
 115 120 125
 Ser Gly Gly Gln His Thr Arg Leu Leu Leu Ala Arg Ala Leu Ile Ser
 130 135 140
 Asp Pro Asp Leu Leu Leu Leu Asp Glu Pro Ser Asn His Leu Asp Leu
 145 150 155 160
 Pro Thr Leu Leu Trp Leu Glu Gln Phe Leu Gln Ser Trp Ser Gly Ser
 165 170 175
 Phe Val Leu Val Ser His Asp Arg Gln Leu Leu Asp Ala Ile Thr Asn
 180 185 190
 Gly Ser Trp Ile Leu Arg Asp Lys Thr Leu His Tyr Phe Ala Leu Pro
 195 200 205
 Cys Thr Ala Ala Arg Gln Ala Leu Glu Ala Lys Asp Glu Ser Asp Ala
 210 215 220
 Leu Arg His Lys Ala Glu Gln Lys Glu Ile Asp Arg Val Thr Ala Ser
 225 230 235 240
 Ala Lys Arg Leu Ala Thr Trp Gly Lys Val Tyr Asp Asn Glu Asp Leu
 245 250 255
 Ser Arg Lys Ala Lys Gln Met Glu Lys Gln Val Glu Arg Leu Lys Glu
 260 265 270
 Asn Gln Thr Glu Leu Thr Ala Gly Ser Pro Trp Thr Leu Thr Leu Arg


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<210> 8029
<211> 350
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Thr | Ala | His | Ala | Gly | Gly | Lys | Cys | Met | Thr | Phe | Trp | Ser | Ile | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Gln | Arg | Cys | Trp | Gly | Leu | Ile | Leu | Val | Val | Ala | Gly | Val | Cys | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Thr | Phe | Ile | Ile | Ser | His | Leu | Ile | Pro | Gly | Asp | Pro | Ala | Arg | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Ala | Gly | Asp | Arg | Ala | Ser | Asp | Glu | Ile | Val | Gln | Gly | Ile | Arg | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gln | Leu | Gly | Leu | Asp | Gln | Pro | Leu | Tyr | Ile | Gln | Phe | Gly | Arg | Tyr | Val |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Glu | Ala | Leu | Ala | His | Gly | Asp | Leu | Gly | Thr | Ser | Ile | Arg | Thr | Gly | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Pro | Val | Ala | Glu | Asp | Leu | Lys | Ala | Phe | Phe | Pro | Ala | Thr | Leu | Glu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Phe | Cys | Ser | Leu | Leu | Leu | Ala | Leu | Val | Ile | Gly | Val | Pro | Leu | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Leu | Ser | Ala | Val | Tyr | Arg | Asn | Arg | Trp | Leu | Asp | His | Leu | Val | Arg |

| | | |
|-------------------------|---|-----------------|
| 130 | 135 | 140 |
| Leu Met Ala Met Thr Gly | Ile Ser Thr Pro Ala Phe | Trp Leu Gly Leu |
| 145 | 150 | 155 |
| Gly Val Ile Val Leu Phe | Tyr Gly Gln Leu Gln Ile Leu Pro | Gly Gly |
| 165 | 170 | 175 |
| Gly Arg Leu Asp Asp Trp | Leu Asp Pro Pro Ala His Val Thr | Gly Phe |
| 180 | 185 | 190 |
| Tyr Leu Leu Asp Ala Leu | Leu Glu Gly Asn Gly Glu Val Phe Phe Asn | |
| 195 | 200 | 205 |
| Ala Leu Gln His Leu Ile | Leu Pro Ser Leu Thr Leu Ala Phe Val His | |
| 210 | 215 | 220 |
| Leu Gly Ile Val Ala Arg | Gln Val Arg Ser Ala Met Leu Glu Gln Leu | |
| 225 | 230 | 235 |
| Ser Glu Asp Tyr Ile Arg | Thr Ala Arg Ala Ser Gly Leu Pro Gly Trp | |
| 245 | 250 | 255 |
| Tyr Ile Val Leu Arg Tyr | Ala Leu Pro Asn Ala Met Ile Pro Ser Ile | |
| 260 | 265 | 270 |
| Thr Val Leu Gly Leu Ala | Leu Gly Asp Leu Leu Tyr Gly Ala Val Leu | |
| 275 | 280 | 285 |
| Thr Glu Thr Val Phe Ala | Trp Pro Gly Met Gly Ala Trp Val Val Thr | |
| 290 | 295 | 300 |
| Ser Ile Gln Ala Leu Asp | Phe Pro Ala Val Met Gly Phe Ala Val Val | |
| 305 | 310 | 315 |
| Val Ser Leu Ala Tyr Val | Phe Val Asn Leu Val Val Asp Leu Leu Tyr | |
| 325 | 330 | 335 |
| Leu Trp Ile Asp Pro Arg | Ile Gly Arg Gly Gly Ala Glu | |
| 340 | 345 | 350 |

<210> 8030

<211> 289

<212> PRT

<213> Enterobacter cloacae

<400> 8030

| | |
|---|-------------|
| Gln Arg Gly Gly Met Thr Thr Lys Pro Glu Val Leu Ser Arg Ile Glu | |
| 1 | 5 10 15 |
| Ala Thr Phe Ser Gln Leu Thr Pro Ser Glu Lys Arg Val Ala Ser Trp | |
| 20 | 25 30 |
| Met Leu Ala His Val Gly Gln Ile Pro Phe Glu Thr Ala Glu Ser Val | |
| 35 | 40 45 |
| Ala Leu Ala Thr Ala Thr Ser Gly Ile Thr Val Gly Arg Phe Leu Arg | |
| 50 | 55 60 |
| Lys Leu Gly Tyr Arg Asn Leu Asp Asp Ala Lys Lys Ser Leu Arg Asp | |
| 65 | 70 75 80 |
| Pro His Gln Pro Trp Gly Ile Asn Glu Arg Leu Asp Ser Trp Lys Gln | |
| 85 | 90 95 |
| Gln Gln Pro Leu Ser Asp Arg Leu Gln Asn Ser Leu Ser Leu Glu Val | |
| 100 | 105 110 |
| Asp Ala Ile Ala His Val Tyr Gln Leu Ala Gln Ser Glu Thr Phe Arg | |
| 115 | 120 125 |
| Gln Val Val Gln Gln Leu Thr His Ala Asp Ala Val Phe Val Leu Gly | |
| 130 | 135 140 |
| Ile Gln Ser Thr Arg Gly Ile Ala Asn Ala Phe Phe Ser His Leu Glu | |
| 145 | 150 155 160 |
| Tyr Leu Arg Pro Arg Val Ser Tyr Ser Glu Gly Leu Ser Gly Ser Trp | |
| 165 | 170 175 |
| Val Glu Ser Leu Asn Ser Gly Phe Ala Asn Pro Tyr Ile Val Leu Thr | |
| 180 | 185 190 |
| Asp Thr Arg Ala Tyr Ser Ala Ile Ala Arg Gln Tyr Cys Arg Val Ala | |
| 195 | 200 205 |
| Ser Glu Lys Gly Leu Ala Met Ala Leu Ile Thr Asp Ile Trp Cys Pro | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210 | | 215 | | 220 | | | | | | | | | | | |
| Trp | Ala | Arg | Asp | Tyr | Pro | Ile | Asp | Leu | Leu | Gln | Val | Lys | Thr | Asp | Thr |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | His | Phe | Trp | Asp | Ser | Leu | Ala | Pro | Val | Ser | Cys | Leu | Phe | Asn | Leu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Leu | Leu | Ser | Gly | Val | Val | Glu | Ala | Leu | Gly | Asp | Ala | Leu | Pro | Glu | Arg |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Leu | Ala | Ile | Asn | Arg | Gln | Leu | Gln | Gln | Glu | Phe | Gly | Gln | Phe | Glu | Arg |
| | | 275 | | | | | 280 | | | | | 285 | | | |

<210> 8031
 <211> 195
 <212> PRT
 <213> Enterobacter cloacae

<400> 8031

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Gly | Ala | Met | Pro | Glu | Glu | Ser | Gln | Leu | Ile | Asp | Val | Ala | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Phe | Pro | Thr | Leu | His | Ile | Asp | Leu | Lys | Tyr | Ala | Thr | Ala | Asp | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Thr | Gly | Arg | Pro | Ile | Tyr | Gln | His | Ala | Ala | Cys | Leu | Leu | His | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Ala | Ala | Thr | Ala | Leu | Ala | Lys | Ala | Ile | Gly | Ile | Ala | Ala | Leu | Ala |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Gly | Leu | Lys | Leu | Val | Val | Tyr | Asp | Ala | Tyr | Arg | Pro | Gln | Gln | Ala | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Ser | Gln | Leu | Trp | Asp | Ala | Cys | Pro | Asn | Pro | Glu | Tyr | Val | Val | Asp | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Ala | Ile | Gly | Ser | Asn | His | Ser | Arg | Gly | Thr | Ala | Ile | Asp | Val | Thr | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Met | Asp | Glu | His | Asp | Asn | Val | Leu | Asp | Met | Gly | Ala | Gly | Phe | Asp | Glu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Met | His | Asp | Arg | Ser | His | Ala | Trp | His | Pro | Ser | Val | Pro | Pro | Glu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Arg | Asn | Arg | Leu | Leu | Asn | Ala | Val | Met | Tyr | Gly | Gly | Gly | Phe | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Val | Gly | Ile | Ser | Ser | Glu | Trp | Trp | His | Phe | Glu | Leu | Pro | Asn | Ala | Ala |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Ser | Tyr | Pro | Leu | Leu | Asp | Asp | Gln | Phe | Ala | Cys | Tyr | Pro | Thr | Thr | His |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Ser | Leu | | | | | | | | | | | | | | |

195

<210> 8032
 <211> 516
 <212> PRT
 <213> Enterobacter cloacae

<400> 8032

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Trp | Ser | Pro | Ala | Met | Lys | Thr | Thr | Leu | Leu | Thr | Thr | Leu | Ile | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Thr | Leu | Ala | Leu | Ser | Ala | Pro | Leu | Ala | Leu | Ala | Ala | Val | Pro | Lys |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Asp | Met | Leu | Val | Ile | Gly | Lys | Ala | Ala | Asp | Pro | Gln | Thr | Leu | Asp | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Val | Thr | Ile | Asp | Asn | Asn | Asp | Trp | Thr | Val | Thr | Tyr | Pro | Ser | Tyr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Gln | Arg | Leu | Val | Lys | Tyr | Lys | Pro | Gly | Thr | Thr | Glu | Val | Glu | Gly | Asp |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |

Leu Ser Thr Gly Trp Lys Ala Ser Asp Asp Gln Lys Glu Trp Thr Phe
 85 90 95
 Thr Leu Ala Asp Asn Ala Lys Phe Ser Asp Gly Thr Pro Val Thr Ala
 100 105 110
 Glu Ala Val Lys Leu Ser Phe Glu Arg Leu Leu Lys Ile Asn Gln Gly
 115 120 125
 Pro Ser Glu Ala Phe Pro Lys Asp Leu Lys Val Asp Ala Val Asp Glu
 130 135 140
 His Thr Val Lys Phe Thr Leu Ser Gln Pro Phe Ala Pro Phe Leu Tyr
 145 150 155 160
 Thr Leu Ala Asn Asp Gly Ala Ser Ile Val Asn Pro Ala Val Leu Lys
 165 170 175
 Ala Asn Ala Ala Asp Asp Ala Arg Gly Phe Leu Ala Gln Asn Thr Ala
 180 185 190
 Gly Ser Gly Pro Phe Met Leu Lys Ser Trp Arg Lys Gly Gln Gln Leu
 195 200 205
 Val Met Val Pro Asn Pro His Trp Pro Gly Glu Lys Pro His Phe Lys
 210 215 220
 Arg Val Ser Val Lys Ile Ile Gly Glu Ser Ala Ser Arg Arg Leu Gln
 225 230 235 240
 Leu Ser Arg Gly Asp Leu Asp Ile Ala Asp Ala Leu Pro Val Asp Gln
 245 250 255
 Leu Ala Ala Leu Lys Gln Glu Gly Lys Val Ala Val Ala Glu Tyr Pro
 260 265 270
 Ser Leu Arg Val Thr Tyr Leu Tyr Leu Asn Asn Ser Lys Pro Pro Met
 275 280 285
 Asn Gln Val Asp Leu Arg Arg Ala Val Ser Trp Ala Thr Asp Tyr Gln
 290 295 300
 Gly Met Val Lys Gly Ile Leu Ser Gly Asn Gly Lys Gln Met Arg Gly
 305 310 315 320
 Pro Ile Pro Glu Gly Met Trp Gly Phe Asp Ala Asn Ala Met Gln Tyr
 325 330 335
 Ser Phe Asp Glu Ala Lys Ala Lys Ala Ala Leu Glu Lys Val Asn Asp
 340 345 350
 Lys Pro Ala Ser Leu Thr Phe Leu Tyr Ser Asp Asn Asp Pro Asn Trp
 355 360 365
 Glu Pro Ile Ala Leu Ser Thr Gln Ala Ser Leu Gly Lys Leu Gly Ile
 370 375 380
 Asn Val Lys Leu Glu Lys Leu Ala Asn Ala Thr Met Arg Asp Arg Val
 385 390 395 400
 Gly Lys Gly Asp Tyr Asp Ile Ala Ile Gly Asn Trp Ser Pro Asp Phe
 405 410 415
 Ala Asp Pro Tyr Met Phe Met Asn Tyr Trp Phe Glu Ser Asp Lys Lys
 420 425 430
 Gly Leu Pro Gly Asn Arg Ser Phe Tyr Glu Asn Lys Glu Val Asp Ala
 435 440 445
 Leu Leu Gln Ala Ala Leu Lys Thr Thr Asp Gln Ala Glu Arg Thr Lys
 450 455 460
 Asp Tyr Gln Gln Ala Gln Lys Val Val Ile Asp Glu Ala Ala Tyr Val
 465 470 475 480
 Tyr Leu Phe Gln Lys Asn Tyr Gln Leu Ala Met Asn Lys Glu Val Lys
 485 490 495
 Gly Phe Thr Phe Asn Pro Met Leu Glu Gln Val Phe Asn Ile Ala Thr
 500 505 510
 Met Ser Lys
 515

<210> 8033

<211> 348

<212> PRT

<213> Enterobacter cloacae

<400> 8033

Ser Val Trp Arg Trp Ser Ser Arg Pro Ala Gly Ser Gln Ile Arg Arg
 1 5 10 15
 Glu Ala Val Met Ser Asp Ser Val Leu Ser Ile Glu Asp Leu His Leu
 20 25 30
 Ser Phe Pro Ile Phe Arg Gly Asp Val His Ala Leu Asn His Val Ser
 35 40 45
 Leu Glu Ile Gly Arg Gly Glu Ile Val Gly Val Val Gly Glu Ser Gly
 50 55 60
 Ser Gly Lys Ser Val Thr Ala Met Leu Ala Met Arg Leu Leu Pro Glu
 65 70 75 80
 Gly Ser Tyr His Val His His Gly Arg Val Thr Leu Leu Gly Glu Asp
 85 90 95
 Val Leu Asn Ala Ser Glu Lys Gln Leu Arg Gln Trp Arg Gly Ala Arg
 100 105 110
 Val Ala Met Ile Phe Gln Glu Pro Met Thr Ala Leu Asn Pro Thr Arg
 115 120 125
 Arg Ile Gly Arg Gln Met Val Glu Val Ile Arg Gln His Gln Ser Leu
 130 135 140
 Ser Arg Arg Asp Ala Gln Lys Ala Ile Ala Leu Leu Gly Glu Met
 145 150 155 160
 Gln Ile Pro Asp Ala Ala Gln Val Met Asp Arg Tyr Pro Phe Glu Leu
 165 170 175
 Ser Gly Gly Met Arg Gln Arg Val Met Ile Ala Leu Ala Phe Ser Cys
 180 185 190
 Glu Pro Glu Leu Ile Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp Val
 195 200 205
 Thr Val Gln Arg Gln Val Leu Arg Leu Leu Lys His Lys Ala Arg Ala
 210 215 220
 Ser Gly Thr Ser Val Leu Phe Ile Ser His Asp Met Ala Val Val Ser
 225 230 235 240
 Gln Leu Cys Asp Arg Met Tyr Val Met Tyr Ala Gly Ser Val Ile Glu
 245 250 255
 Ser Gly Ser Thr Gln Thr Leu Ile His His Pro Val His Pro Tyr Ser
 260 265 270
 Ile Gly Leu Leu Arg Cys Ala Pro Glu Asn Gly Glu Pro Arg Glu Ile
 275 280 285
 Leu Pro Ala Ile Pro Gly Thr Val Pro Asn Leu Ser His Leu Pro Arg
 290 295 300
 Gly Cys Ala Phe Arg Glu Arg Cys Phe Ala Ala Gly Ala Lys Cys Ser
 305 310 315 320
 Glu Thr Pro Arg Leu Ile Ser Thr Gly Ala Glu Gly Gln Gln Ala Ala
 325 330 335
 Cys Trp Tyr Pro Gln Gln Glu Arg Arg His Val
 340 345

<210> 8034

<211> 310

<212> PRT

<213> Enterobacter cloacae

<400> 8034

Ala Ser Pro Val Ser Gly Ile Leu Ala Asn Glu Glu Ile Arg Thr Ile
 1 5 10 15
 Glu Thr Phe Leu Lys Asn Arg Asp Met Thr Met Thr Ile Ala Arg Leu
 20 25 30
 Ala Leu Leu Thr Thr Leu Phe Thr Pro Ala Val Phe Ala Ala Pro Leu
 35 40 45
 Thr Val Asp Thr Tyr Asn Pro Gln Glu Lys Gly Ile Phe Ala Val Ser
 50 55 60

Ser Thr Leu Val Ser Gly Pro Lys Glu Ala Val Leu Phe Asp Ala Gln
 65 70 75 80
 Phe Ser Val Lys Asp Gly Glu Ala Leu Val Glu Lys Ile Arg His Ser
 85 90 95
 Gly Lys Thr Leu Asn Lys Ile Val Ile Thr Ser Gly Asp Pro Asp Phe
 100 105 110
 Tyr Phe Gly Leu Gln Pro Leu Val Lys Ala Phe Pro Asn Ala Lys Val
 115 120 125
 Val Ala Thr Gln Gln Val Val Asp His Ile Arg Ala Thr Lys Asp Ala
 130 135 140
 Lys Leu Ala Phe Trp Gly Pro Gln Met Lys Asp Gly Ala Pro Ser Gln
 145 150 155 160
 Leu Tyr Leu Pro Gln Val Leu Ala Ser Thr Thr Phe Met Ile Asp Gly
 165 170 175
 Glu Arg Val Asn Ile Glu Glu Pro Glu Ser Tyr Ala Ala Tyr Val Trp
 180 185 190
 Ile Pro Ser Ala Lys Thr Ile Leu Gly Gly Thr Gly Val Ser Trp Gly
 195 200 205
 Ile His Val Trp Thr Ala Asp Thr Gln Thr Pro Glu Ser Arg Lys Gln
 210 215 220
 Trp Gln Gln Thr Leu Asp Ser Met Ala Ala Leu Lys Pro Glu His Val
 225 230 235 240
 Ile Pro Gly His Tyr Leu Gly Thr Pro Pro Ala Gly Thr Gly Ala Ile
 245 250 255
 Asp Phe Thr Arg Arg Tyr Leu His Gln Phe Glu Gln Ala Leu Met Thr
 260 265 270
 His Lys Ala Ser Thr Gly Val Ile Ser Thr Met Lys Lys Gln Trp Pro
 275 280 285
 Asn Leu Ala Glu Ala Ser Ser Leu Glu Leu Ser Ala Lys Val Asn Thr
 290 295 300
 Gly Glu Met Lys Trp
 305 310

<210> 8035

<211> 89

<212> PRT

<213> Enterobacter cloacae

<400> 8035

Ile Thr Ile Leu His Ala Val Thr Leu Asn Arg Gln Arg His Gly Gly
 1 5 10 15
 Ser Met Phe Thr Tyr Tyr Pro Ala His Thr Thr Ala Ala Gln Pro Glu
 20 25 30
 Leu Val Asn Ala Ile Ala Gln Gly Leu Gln Ala Glu His Gly Val Val
 35 40 45
 Thr Glu Asp Asp Ile Leu Met Glu Leu Thr Lys Trp Val Glu Ala Thr
 50 55 60
 Asp Asn Asp Ile Leu Ser Asp Ile Tyr Gln Gln Thr Ile Asn Tyr Val
 65 70 75 80
 Val Ser Gly Gln Asn Ala Pro Leu
 85

<210> 8036

<211> 341

<212> PRT

<213> Enterobacter cloacae

<400> 8036

Lys Glu Lys His Met Lys Ala Ala Val Val Thr Gln Asp His Gln Val
 1 5 10 15
 Asn Val Thr Glu Lys Thr Leu Arg Ala Leu Lys His Gly Glu Ala Leu


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<210> 8037
<211> 407
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 8037 | | | | | | | | | | | | | | | |
| Arg | Thr | Lys | Gly | Ser | Ser | Met | Lys | Lys | Gln | Ile | Leu | Ile | Val | Gly | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Phe | Ser | Gly | Met | Trp | Ala | Ala | Val | Ser | Ala | Ala | Arg | Leu | Ser | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Gly | Asn | Asn | Ser | Leu | Ser | Ile | Ala | Val | Leu | Ala | Pro | Val | Ala |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Leu | Arg | Val | Arg | Pro | Arg | Phe | Tyr | Glu | Glu | Asn | Val | Ser | Thr | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Ala | Pro | Leu | Thr | Glu | Leu | Phe | Ala | Glu | Leu | Gly | Ile | Thr | Phe | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Ala | Gly | Glu | Ala | Gln | Arg | Ile | Asp | Thr | Ser | Ser | Lys | Thr | Val | Leu | Tyr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Asp | Ser | Asn | Gly | Ala | Ile | Ala | Asp | Val | Ala | Trp | Glu | Arg | Leu | Ile |


```
<210> 8038
<211> 704
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Glu | Arg | Gln | Leu | Ile | Gly | Thr | Glu | Gln | Ile | Thr | Phe | Leu | Gln | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ile | Asn | Ala | Leu | Arg | Arg | Val | Val | Ile | Asn | Tyr | Ser | Val | Val | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Leu | Ser | Gly | Ala | Phe | Gln | Pro | Gly | Glu | Ile | Ile | Met | Ser | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Gly | Lys | Phe | Ile | Leu | His | Ser | Gly | Tyr | Ile | Pro | Ser | Gly | Asp | Gln | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Glu | Ala | Ile | Ala | Arg | Leu | Ile | Ala | Gly | Val | Glu | Ala | Gly | Ala | Thr | His |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Gln | Thr | Leu | Gln | Gly | Ile | Thr | Gly | Ser | Gly | Lys | Thr | Phe | Thr | Met | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asn | Val | Ile | His | Arg | Leu | Gln | Arg | Pro | Thr | Leu | Ile | Leu | Ala | Pro | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Thr | Leu | Thr | Ala | Gln | Leu | Tyr | Leu | Glu | Met | Lys | Gln | Phe | Phe | Pro |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|--|
| | | | | | | | | | | | | | | | | |
| Glu | Asn | Ala | Val | Glu | Tyr | Phe | Val | Ser | Tyr | Tyr | Asp | Phe | Phe | Gln | Pro | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Glu | Val | Tyr | Ile | Pro | Gly | Ser | Asp | Arg | Phe | Ile | Pro | Lys | Asp | Ser | Ala | |
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| Ile | Asn | Asp | His | Leu | Glu | Arg | Leu | Arg | Leu | Ser | Thr | Thr | Lys | Ala | Leu | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ile | Glu | Arg | Gln | Asp | Val | Ile | Val | Val | Ala | Ser | Val | Ser | Ser | Ile | Tyr | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Gly | Leu | Gly | Asp | Pro | Asp | Ala | Tyr | Arg | Glu | Ile | Gln | Ile | Pro | Val | Tyr | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Pro | Gly | Arg | Gln | Leu | Ala | Gln | Arg | Glu | Leu | Ile | His | Gln | Leu | Ala | Arg | |
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| Leu | Gln | Tyr | Ala | Arg | Thr | Asp | Lys | Thr | Leu | Gly | Arg | Ala | Met | Phe | Arg | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Val | Arg | Gly | Asp | Val | Ile | Asp | Ile | Phe | Pro | Ala | Asp | Ser | Glu | His | Gln | |
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| Ala | Ile | Arg | Val | Glu | Leu | Phe | Asp | Asp | Val | Ile | Glu | Ser | Ala | Lys | Trp | |
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| Ile | Asp | Pro | Val | Ser | Gly | Lys | Ile | Ala | Gly | Asp | Ile | Glu | His | Tyr | Leu | |
| | | 275 | | | | | 280 | | | | | 285 | | | | |
| Ile | Ser | Pro | Lys | Thr | Leu | Phe | Val | Thr | Pro | Thr | Ala | Lys | Ile | Pro | Ser | |
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| Ala | Thr | Lys | Ser | Ile | Leu | Thr | Asp | Met | Glu | Lys | Arg | Val | Ala | Glu | Leu | |
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| Asn | Lys | Ala | Asn | Arg | Leu | Ile | Glu | Ala | Glu | Arg | Leu | Tyr | Glu | Arg | Val | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Asn | Asn | Asp | Val | Glu | Met | Ile | Arg | Glu | Leu | Gly | Tyr | Cys | Ser | Gly | Met | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Glu | Asn | Tyr | Ser | Cys | Tyr | Phe | Ser | Asp | Arg | Asn | Pro | Glu | Leu | Pro | Pro | |
| | | 355 | | | | | 360 | | | | | 365 | | | | |
| Thr | Thr | Leu | Leu | Asp | Tyr | Leu | Pro | Lys | Asn | Gly | Leu | Leu | Phe | Val | Asp | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Glu | Ser | His | Val | Met | Val | Pro | Gln | Ile | Ser | Ala | Met | Tyr | Ser | Gly | Asp | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Gln | Ser | Arg | Lys | Asp | Thr | Leu | Ile | Asp | Phe | Gly | Phe | Arg | Leu | Pro | Ser | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Ser | Lys | Asn | Asn | Arg | Pro | Leu | Ser | Phe | Ala | Glu | Phe | Glu | Lys | Ile | Lys | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Pro | Gln | Thr | Val | Phe | Val | Ser | Ala | Thr | Pro | Gly | Lys | Tyr | Glu | Leu | Gln | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Lys | Ser | Lys | Lys | Asn | Val | Val | Gln | Gln | Ile | Ile | Arg | Pro | Thr | Gly | Leu | |
| | | | | | 455 | | | | | | 460</ | | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Ala | Met | Asp | Glu | Thr | His | Asn | Arg | Arg | Glu | Arg | Gln | Ile | Ala | Tyr |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Asn | Leu | Glu | His | His | Ile | Lys | Pro | Val | Thr | Ser | Val | Arg | Lys | Arg | Ser |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Thr | Glu | Gln | Asp | Glu | Ser | Val | Tyr | Pro | Ala | Thr | His | Thr | Glu | Ala | Phe |
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| Cys | Ser | Thr | Leu | Ser | Glu | Leu | Cys | Glu | Arg | Ile | Thr | Val | Lys | Glu | Lys |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Gln | Leu | Leu | Ala | Ile | Glu | Asn | Ser | Gly | Glu | Glu | Lys | Asp | Ile | Glu | Lys |
| | | 675 | | | | 680 | | | | | 685 | | | | |
| Leu | Arg | Thr | Glu | Leu | Ser | Asp | Leu | Tyr | Arg | Gln | Phe | Ile | Phe | Met | |
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<213> Enterobacter cloacae

<400> 8039

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Asp | Phe | His | Asn | His | Thr | Pro | Ala | Ser | Asp | Asp | Tyr | Lys | Val | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Asp | Leu | Gln | Pro | Arg | Glu | Trp | Leu | Leu | Ala | Tyr | Met | Arg | Gln | Gln | Val |
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| Asp | Cys | Val | Val | Ile | Ser | Asp | His | Asn | Ser | Gly | Ala | Trp | Ile | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Lys | Ala | Glu | Leu | Ala | Asn | Met | Ser | Arg | Asp | Ala | Ser | Ser | Gly | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Ala | Asp | Phe | Arg | Pro | Leu | Thr | Leu | Phe | Pro | Gly | Val | Glu | Leu | Thr |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Thr | Gly | Asn | Val | His | Ile | Leu | Ala | Val | Leu | His | Thr | Gln | Ser | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ala | Glu | Val | Glu | Arg | Leu | Leu | Ala | Gln | Cys | Asn | Asn | Asn | Cys | Pro |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ile | Ser | Arg | Glu | Thr | Pro | Asn | His | His | Leu | Val | Leu | Gln | Leu | Gly | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Gly | Ile | Ile | Ser | Asn | Ile | Arg | Arg | Asn | Pro | Glu | Ala | Ile | Cys | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Ala | His | Ile | Asp | Ala | Ala | Lys | Gly | Val | Leu | Thr | Ser | Leu | Thr | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gln | Gly | Glu | Leu | Thr | Ala | Ala | Phe | Gln | Ser | Asn | Pro | His | Ala | Val | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Arg | His | Arg | Glu | Glu | Glu | Ile | Thr | Asn | Gly | Thr | His | Arg | Arg | Leu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Ile | Ala | Asp | Leu | Pro | Trp | Leu | Arg | Gly | Ser | Asp | Ala | His | His | Pro | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Ala | Gly | Val | Arg | Thr | Cys | Trp | Leu | Lys | Met | Ser | Glu | Pro | Asp | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Gly | Leu | Arg | His | Ala | Leu | Leu | Asp | Pro | Glu | Asn | Cys | Val | Leu | Phe |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Asp | Asp | Asn | Pro | Pro | Glu | Ala | Pro | Ala | Ser | His | Leu | Arg | Ser | Leu | Thr |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Arg | Thr | Arg | Leu | Cys | Gln | Pro | Ala | Asp | Gln | Tyr | Gly | Ala | Ser | Val |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Glu | Phe | Ser | Pro | Phe | Tyr | Asn | Ala | Val | Ile | Gly | Ser | Arg | Gly | Ser | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Ser | Thr | Leu | Ile | Glu | Ser | Ile | Arg | Leu | Ala | Met | Arg | Lys | Thr | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Leu | Thr | Val | Ser | Gln | Arg | Asn | Lys | Leu | Asn | Gln | Phe | Ser | Gln | Met |
| | | | | 325 | | | | | 330 | | | | | 335 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Met | Gly | Met | Asp | Ala | Asp | Ser | Phe | Ile | Glu | Cys | Val | Phe | Arg | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Gly | Thr | Asp | Phe | Arg | Leu | Ser | Trp | Arg | Pro | Asp | Gly | Arg | Asn | Glu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | His | Ile | Phe | Ser | Glu | Gly | Gln | Trp | Val | Gln | Asp | Asn | His | Trp | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Pro | Asp | Arg | Phe | Pro | Leu | Ser | Ile | Tyr | Ser | Gln | Lys | Met | Leu | Tyr | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Ala | Ser | Asp | Thr | Gly | Ala | Phe | Leu | Arg | Val | Cys | Asp | Glu | Ser | Gln |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Val | Val | Asn | Lys | Arg | Ala | Trp | Lys | Glu | Arg | Trp | Asp | Gln | Leu | Glu | Arg |
| | | 420 | | | | | | 425 | | | | | 430 | | |
| Glu | Tyr | Leu | Asn | Glu | Gln | Ile | Thr | Leu | Arg | Gly | His | Leu | Ala | Ser | Gln |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Thr | Ile | Ala | Asp | Lys | Leu | Gln | Gly | Glu | Leu | Ser | Asp | Ala | Glu | Arg | Ala |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Val | Ser | Gln | Leu | Arg | Ser | Ser | Ala | Tyr | Tyr | Pro | Val | Cys | Thr | Arg | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ala | Thr | Ala | Arg | Ala | Glu | Leu | Ser | Ala | Ala | Thr | Leu | Pro | Leu | Glu | His |
| | | | 485 | | | | | 490 | | | | | | 495 | |
| His | Glu | Gln | His | Val | Ala | Gly | Leu | Arg | Ala | Gln | Glu | Lys | Glu | Pro | Val |
| | | 500 | | | | | | 505 | | | | | 510 | | |
| Gln | Val | Pro | Glu | Leu | Gln | Val | Glu | Pro | Ser | Ala | Thr | Leu | Thr | Ala | Phe |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Met | Thr | Arg | Leu | Ser | Asp | Val | Gln | Gln | Lys | Tyr | Asp | Gln | Arg | Leu | Asp |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Thr | Leu | Leu | Ser | Asp | Tyr | Ala | Ala | Glu | Leu | Ser | Thr | Ile | Arg | Gln | Asp |
| 545 | | | | 550 | | | | | | 555 | | | | | 560 |
| Pro | Pro | Leu | Leu | Ala | Leu | Glu | Glu | Ala | Val | Arg | Asn | Gln | Glu | Glu | Thr |
| | | | 565 | | | | | 570 | | | | | | 575 | |
| Val | Gln | Arg | Glu | Ala | Met | Val | Leu | Arg | Glu | Gln | Gly | Leu | Asn | Pro | Asn |
| | | 580 | | | | | | 585 | | | | | 590 | | |
| Val | Leu | Asp | Glu | Leu | Met | Thr | Arg | Cys | Glu | Ser | Leu | Lys | Ser | Glu | Leu |
| | 595 | | | | | 600 | | | | | 605 | | | | |
| Arg | Asn | Tyr | Ala | Asp | Leu | Asp | Gly | Thr | Ile | Ala | Ala | Ser | Ala | Ala | Arg |
| | 610 | | | | 615 | | | | | 620 | | | | | |
| Ser | Thr | Gly | Leu | Leu | Ala | Glu | Met | Arg | Asn | His | Arg | Met | Val | Leu | Thr |
| 625 | | | | 630 | | | | | 635 | | | | | | 640 |
| Glu | Lys | Arg | Lys | Ala | Phe | Leu | Ser | Ser | Leu | Ser | Leu | Ser | Ala | Leu | Asp |
| | | | 645 | | | | | 650 | | | | | | 655 | |
| Ile | Lys | Ile | Leu | Pro | Leu | Cys | Ala | Pro | His | Glu | Asp | Thr | Val | Ser | Gly |
| | | 660 | | | | | 665 | | | | | | 670 | | |
| Tyr | Gln | Ala | Val | Thr | Gly | Ile | Gly | Asn | Phe | Ala | Asp | Arg | Ile | Tyr | Asp |
| | 675 | | | | | 680 | | | | | 685 | | | | |
| Asp | Gly | Asp | Gly | Ser | Gly | Leu | Leu | His | Ser | Phe | Ile | Ser | Leu | Arg | Pro |
| | 690 | | | | 695 | | | | | 700 | | | | | |
| Tyr | Ser | Pro | Leu | Pro | Ser | Ala | Thr | Glu | Asn | Lys | Tyr | Leu | Ala | Leu | Asp |
| 705 | | | | 710 | | | | | 715 | | | | | | 720 |
| Thr | Leu | Lys | Ala | Leu | His | Leu | Ala | Ile | His | Arg | Glu | Glu | Pro | Gly | Ala |
| | | | 725 | | | | | 730 | | | | | | 735 | |
| Gly | Ser | Glu | Leu | His | Gly | Ala | Phe | Arg | Asn | Arg | Leu | Lys | Gly | Leu | Asn |
| | | 740 | | | | 745 | | | | | | | 750 | | |
| Asp | Ala | Gln | Leu | Asp | Ala | Leu | Gln | Cys | Trp | Tyr | Pro | Asp | Asp | Gly | Ile |
| | 755 | | | | | 760 | | | | | 765 | | | | |
| His | Ile | Arg | Tyr | Gln | Thr | Pro | Gly | Gly | Gly | Met | Glu | Asp | Ile | Ser | Ser |
| 770 | | | | | 775 | | | | | 780 | | | | | |
| Ala | Ser | Pro | Gly | Gln | Lys | Gly | Ala | Ser | Met | Leu | Gln | Phe | Leu | Leu | Ser |
| 785 | | | | 790 | | | | | 795 | | | | | | 800 |
| Tyr | Gly | Thr | Asp | Pro | Leu | Leu | Leu | Asp | Gln | Pro | Glu | Asp | Asp | Leu | Asp |
| | | | 805 | | | | | 810 | | | | | | 815 | |
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<212> PRT
<213> Enterobacter cloacae
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<211> 350
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| Met | Glu | Ile | Lys | Val | Leu | His | Lys | Arg | Gly | Met | Ser | Ile | Arg | Ala | Ile | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ala | Arg | Glu | Leu | Gly | Ile | Ser | Arg | Asn | Thr | Val | Arg | Ser | His | Leu | Lys | |
| | | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Lys | Ser | Glu | Lys | Pro | Gln | Tyr | Ser | Pro | Arg | Pro | Ala | Pro | Ser | Ser | |
| | | | 50 | | | | 55 | | | | | 60 | | | | |
| Leu | Leu | Asp | Glu | Tyr | Arg | Asp | Tyr | Ile | Ser | Lys | Arg | Ile | Ser | Asp | Ala | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| His | Pro | Tyr | Lys | Ile | Pro | Ala | Thr | Val | Ile | Ala | Arg | Glu | Ile | Met | Glu | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Gly | Tyr | Arg | Gly | Gly | Leu | Thr | Ile | Leu | Arg | Glu | Phe | Ile | Arg | Lys | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Gln | Thr | Leu | Pro | Ala | Gln | Ala | Glu | Pro | Val | Val | Arg | Phe | Glu | Thr | Glu | |
| | | | 115 | | | | 120 | | | | | 125 | | | | |

Pro Gly Arg Gln Met Gln Val Asp Trp Gly Thr Met Arg Asn Gly Lys
 130 135 140
 Ser Pro Leu His Val Phe Val Ala Val Leu Gly Tyr Ser Arg Met Leu
 145 150 155 160
 Tyr Ile Glu Phe Thr Asp Asn Met Arg Tyr Asp Thr Leu Glu Ala Cys
 165 170 175
 His Arg Asn Ala Phe Ser Phe Phe Gly Gly Val Pro Gln Glu Val Leu
 180 185 190
 Tyr Asp Asn Met Lys Thr Val Val Leu Gln Arg Asp Ala Tyr Gln Thr
 195 200 205
 Gly Gln His Arg Phe His Pro Ser Leu Trp Gln Phe Gly Lys Glu Met
 210 215 220
 Gly Phe Ser Pro Arg Leu Cys Arg Pro Phe Arg Ala Gln Thr Lys Gly
 225 230 235 240
 Lys Val Glu Arg Met Val Gln Tyr Ala Arg Asn Ser Phe Tyr Ile Pro
 245 250 255
 Leu Met Thr Arg Leu Arg Pro Met Gly Ile Thr Val Asp Val Glu Thr
 260 265 270
 Ala Asn Arg Tyr Gly Leu Arg Trp Leu Tyr Asp Val Ala Asn Gln Arg
 275 280 285
 Lys His Glu Thr Ile Gln Thr Arg Pro Cys Asp Arg Trp Val Glu Glu
 290 295 300
 Gln Gln Ser Met Leu Ala Leu Pro Pro Glu Lys Lys Gln Tyr Asp Val
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 Pro Leu Ser Ile Tyr Asp Thr Phe Cys Arg Gly Ala Ala
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<212> PRT

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<400> 8042

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 20 25 30
 Leu Lys Ile Val Arg Glu Gly Asp Cys Ile Ile Leu Arg Pro Val Arg
 35 40 45
 Pro Thr Trp Cys Ser Phe Ala Gln Leu Glu Lys Ala Glu Pro Asp Phe
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 Met Val Glu Arg Gly Asp Val Val Ser Asp Glu Gly Arg Phe Asp Leu
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<210> 8043

<211> 254

<212> PRT

<213> Enterobacter cloacae

<400> 8043

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 20 25 30
 Asp Asp Val Thr Leu Ser Leu Pro Asp Leu Arg Gln Leu Pro Gly Arg
 35 40 45
 Tyr Cys Thr Leu Gln Leu Leu Ser Thr Arg His Gly Asn Asp Leu Phe

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 50 | | | | | | 55 | | | | | 60 | | | | | |
| Gln | Gly | Trp | His | Ser | Ile | Glu | Asp | Ser | Arg | Asp | Trp | Thr | Tyr | Leu | Pro | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Glu | Arg | Pro | Pro | Thr | Lys | Gln | Ala | Thr | His | Ser | Tyr | Ile | Gln | Gln | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Ile | Gln | Gln | Lys | Gly | Val | Tyr | His | Tyr | Ala | Ile | Ile | Glu | Asn | Asn | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Glu | Asn | Ala | Val | Gly | Thr | Leu | Ser | Leu | Tyr | Asn | Leu | Asp | Asn | Lys | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Asn | Asp | Val | Ala | Glu | Ile | Gly | Gly | Val | His | Leu | Thr | Pro | Val | Ile | Lys | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Arg | Thr | Ser | Val | Ser | Thr | Glu | Ala | Ile | Phe | Leu | Ile | Leu | Ser | Tyr | Val | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Phe | Asp | Val | Leu | Lys | Tyr | Arg | Arg | Cys | Glu | Trp | Gln | Thr | Asp | Arg | Leu | |
| | | | 165 | | | | | 170 | | | | | | 175 | | |
| Asn | Ser | Gln | Gly | Met | Arg | Ser | Ala | Glu | Arg | Leu | Gly | Phe | Gln | Lys | Glu | |
| | | 180 | | | | | 185 | | | | | | 190 | | | |
| Gly | Val | Leu | Arg | Asn | Lys | Gln | Ile | Leu | Lys | Ser | Arg | Ser | Val | Asp | Val | |
| | 195 | | | | | | 200 | | | | | 205 | | | | |
| Val | Met | Tyr | Ser | Ile | Ile | Gln | Asp | Glu | Trp | Glu | Arg | Ile | Ser | Ser | Ala | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Ile | Thr | Ile | Trp | Leu | Arg | Thr | Val | Asn | Phe | Asp | Asp | Arg | Gly | His | Gln | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Ile | His | Pro | Leu | Arg | His | Tyr | Leu | Ala | Thr | Thr | Glu | Pro | | | | |
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<212> PRT

<213> Enterobacter cloacae

<400> 8044

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| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Leu | Ser | Tyr | Leu | Leu | Leu | Ala | Gln | Arg | Val | Leu | Asn | His | Tyr | Glu | Asp | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Thr | Ala | Leu | Phe | Arg | Leu | Gly | Ile | Asp | Lys | Cys | Thr | Gly | Asp | Lys | Leu | |
| | | 35 | | | | 40 | | | | | | 45 | | | | |
| Leu | Gln | Leu | Ser | Leu | Pro | Glu | Leu | Val | Arg | Leu | Ala | Glu | Arg | Pro | Glu | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Leu | Ile | Thr | Val | Leu | Arg | Leu | Arg | Asp | His | His | Gln | Ile | Asp | Val | Leu | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
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<212> PRT

<213> Enterobacter cloacae

<400> 8045

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| His | Met | Lys | Ser | Arg | Ala | Ala | Val | Ala | Phe | Ala | Pro | Gly | Lys | Pro | Leu | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Glu | Ile | Val | Glu | Ile | Asp | Val | Glu | Pro | Pro | Arg | Lys | Gly | Glu | Val | Leu | |
| | | 20 | | | | | | 25 | | | | | 30 | | | |
| Val | Lys | Ile | Thr | His | Thr | Gly | Val | Cys | His | Thr | Asp | Ala | Phe | Thr | Leu | |
| | | 35 | | | | 40 | | | | | | 45 | | | | |
| Ser | Gly | Asp | Asp | Pro | Glu | Gly | Val | Phe | Pro | Ala | Val | Leu | Gly | His | Glu | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gly | Ala | Gly | Val | Val | Val | Glu | Val | Gly | Glu | Gly | Val | Thr | Ser | Val | Lys | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |

Pro Gly Asp His Val Ile Pro Leu Tyr Thr Ala Glu Cys Gly Glu Cys
 85 90 95
 Leu Phe Cys Lys Ser Gly Lys Thr Asn Leu Cys Val Ser Val Arg Ala
 100 105 110
 Thr Gln Gly Lys Gly Leu Met Pro Asp Gly Thr Thr Arg Phe Ser Tyr
 115 120 125
 Lys Gly Gln Pro Leu Phe His Tyr Met Gly Cys Ser Thr Phe Ser Glu
 130 135 140
 Tyr Thr Val Val Ala Glu Val Ser Leu Ala Lys Ile Asn Pro Gln Ala
 145 150 155 160
 Asn His Glu His Val Cys Leu Leu Gly Cys Gly Val Thr Thr Gly Ile
 165 170 175
 Gly Ala Val His Asn Thr Ala Lys Val Gln Pro Gly Asp Thr Val Ala
 180 185 190
 Ile Phe Gly Leu Gly Gly Ile Gly Leu Ala Ala Val Gln Gly Ala Arg
 195 200 205
 Gln Ala Lys Ala Gly Arg Ile Phe Ala Ile Asp Thr Asn Pro Glu Lys
 210 215 220
 Phe Asp Leu Ala Arg Ser Phe Gly Ala Thr Asp Cys Ile Asn Pro Lys
 225 230 235 240
 Asp Tyr Asp Lys Pro Ile Gln Asp Val Leu Ile Glu Leu Thr Gly Trp
 245 250 255
 Gly Val Asp His Thr Phe Glu Cys Ile Gly Asn Val Asn Val Met Arg
 260 265 270
 Ser Ala Leu Glu Ala Ala His Arg Gly Trp Gly Gln Ser Val Val Ile
 275 280 285
 Gly Val Ala Gly Ala Gly Lys Glu Ile Ser Thr Arg Pro Phe Gln Leu
 290 295 300
 Val Thr Gly Arg Val Trp Lys Gly Ser Ala Phe Gly Gly Val Lys Gly
 305 310 315 320
 Arg Thr Gln Leu Pro Gly Met Val Glu Asp Ala Met Lys Gly Glu Ile
 325 330 335
 Tyr Leu Ala Pro Phe Val Thr His Thr Met Gly Leu Glu Glu Ile Asn
 340 345 350
 Asp Ala Phe Asn Leu Met His Glu Cys Lys Ser Ile Arg Thr Val Ile
 355 360 365
 His Tyr
 370

<210> 8046

<211> 454

<212> PRT

<213> Enterobacter cloacae

<400> 8046

Leu Ala Val Arg Lys Arg Glu Ser Leu Met Lys Glu Ser Ala Leu Ser
 1 5 10 15
 Ala Ile Arg Ser Asp Met Gln Ser Pro Glu Thr Val Tyr Gly Met Pro
 20 25 30
 Ala His Lys Asp Arg Thr Ala Ala Val Asn Glu Val His Ala Arg Pro
 35 40 45
 His Leu Leu Ile Thr Ser Pro Gln Thr Leu Leu Gln Phe Ala Phe Met
 50 55 60
 Thr Lys Gly Asp Gln Ser Gly Asp Gln Arg Phe Met Val Glu Leu Ser
 65 70 75 80
 Asp Arg Leu Gly Leu Thr Pro Ser Glu Asn Ser Ala Pro Leu His Gly
 85 90 95
 Ile Thr Trp Arg Glu Gly Ala Leu Tyr Cys Glu Lys His Gly Glu Phe
 100 105 110
 Ser Thr Tyr Leu Trp Ser Thr Thr Cys Asp Pro Arg Asp Gly Gln Leu
 115 120 125

Arg Gly Glu Asn Pro Phe Arg His Gly Phe Thr Pro Pro Gly Ser Val
 130 135 140
 Ile Cys Gly Thr Arg Leu Asp Ile Leu Pro Trp Thr Ala Glu Ser Glu
 145 150 155 160
 Ala Ala Val Thr Asn Leu Asp Pro Val Ser Arg Cys Tyr Ser Val Thr
 165 170 175
 Glu Asn Gly Arg Ala Ala Ile Ile Ser Asp Phe Arg Gln Asp Lys Asp
 180 185 190
 Gly Leu Thr Arg Ile Leu Ile Leu Glu Arg Asp Leu Thr Glu Ala Gln
 195 200 205
 Leu Gly Ala Leu Val Gln Arg Leu Leu Glu Ile Glu Asn Tyr Arg Thr
 210 215 220
 Leu Ala Leu Leu Ser Leu Pro Leu Thr Arg Thr Met Ala Ser Glu Leu
 225 230 235 240
 Arg Arg Val Glu Asn Arg Leu Ala Glu Ile Thr Glu Glu Met Arg Thr
 245 250 255
 Gly Glu His Arg Lys Asn Glu Gln Leu Leu Ser Ala Leu Thr Asn Leu
 260 265 270
 Ala Ala Glu Leu Glu Ala Gly Ala Ala Ala Asn Leu Tyr Arg Phe Gly
 275 280 285
 Ala Ser Gln Ala Tyr Tyr Glu Ile Val Glu Glu Arg Leu Asn Thr Leu
 290 295 300
 Ser Glu Thr Pro Val Pro Gly Tyr Tyr Thr Trp Ser Asp Phe Leu Gln
 305 310 315 320
 Arg Arg Ile Ala Pro Ala Met Arg Thr Cys Arg Ser Val Lys Glu Arg
 325 330 335
 Gln Ala Lys Leu Ser Asp Lys Leu Met Arg Ala Ile Ser Leu Leu Arg
 340 345 350
 Ser Trp Ile Asp Val Glu Leu Glu His Gln Asn Arg Asp Leu Leu Ala
 355 360 365
 Ser Met Asn Asn Arg Ala Arg Gln Gln Leu His Leu Gln Gln Thr Val
 370 375 380
 Glu Gly Leu Ser Val Ala Ala Ile Ser Tyr Tyr Val Val Ser Leu Ile
 385 390 395 400
 Ser Tyr Leu Val Lys Gly Val Pro Gly Ile His Asp Val Met Pro Pro
 405 410 415
 Glu Leu Ala Val Ala Ile Leu Val Pro Phe Ile Val Leu Ala Ile Trp
 420 425 430
 Trp Val Val Arg Arg Ile Arg Asn Ser His Thr Asp Pro Glu His Asn
 435 440 445
 Glu Asn Arg Ser Asp
 450

<210> 8047

<211> 124

<212> PRT

<213> Enterobacter cloacae

<400> 8047

Leu Arg Ser Glu Thr Arg Ala Ala Ile Arg Val Tyr Pro His Ser His
 1 5 10 15
 Arg Ser Ser His Leu Leu Arg Cys Pro Gly Gly Glu Asn Ala Leu Ser
 20 25 30
 Ala Tyr Leu Gly Asp Asp Arg Glu Tyr Trp Lys Gln Tyr Asp Thr Val
 35 40 45
 Glu Leu Ile Arg Lys Ala Gln Glu Arg Leu Pro Leu Leu Val Asp Gln
 50 55 60
 Gly Leu Asn Asp Glu Phe Leu Lys Thr Gln Leu Gln Pro Glu Arg Leu
 65 70 75 80
 Lys Ser Val Cys Glu Asp Thr Gly His Pro Leu Thr Leu Asn Leu Arg
 85 90 95

Pro Gly His Asp His Ser Tyr Tyr Phe Ile Ser Ser Tyr Ile Gly Asp
 100 105 110
 His Ile Ala His His Ala Ala Ala Leu Thr Arg
 115 120

<210> 8048

<211> 885

<212> PRT

<213> Enterobacter cloacae

<400> 8048

Thr Met Ser Lys Lys Leu Phe Gly Ala Pro Pro Thr Leu Thr Asp Ala
 1 5 10 15
 Ser Asn Ser Val Val Val Arg Gly Ala Arg Glu His Asn Leu Lys Glu
 20 25 30
 Val Asp Val Ser Val Pro Arg Asp Ala Leu Val Val Phe Ser Gly Val
 35 40 45
 Ser Gly Ser Gly Lys Ser Ser Leu Ala Phe Gly Thr Ile Tyr Ala Glu
 50 55 60
 Ala Gln Arg Arg Tyr Phe Glu Ser Val Ala Pro Tyr Ala Arg Arg Leu
 65 70 75 80
 Ile Asp Gln Ala Gly Val Pro Asp Val Asp Ala Ile Asp Gly Leu Pro
 85 90 95
 Pro Ala Val Ala Leu Gln Gln Gln Arg Gly Thr Ser Asn Ala Arg Ser
 100 105 110
 Ser Val Gly Ser Val Thr Thr Leu Ser Ser Leu Val Arg Met Met Tyr
 115 120 125
 Ser Arg Ala Gly Ala Tyr Pro Ala Glu Gln Pro Met Leu Tyr Ala Glu
 130 135 140
 Asp Phe Ser Pro Asn Thr Pro Gln Gly Ala Cys Pro Ser Cys His Gly
 145 150 155 160
 Leu Gly His Ile Tyr Asp Val Thr Glu Ala Leu Met Val Pro Asp Pro
 165 170 175
 Ser Leu Ser Ile Arg Asp Arg Ala Ile Ala Ser Trp Pro Pro Ala Trp
 180 185 190
 His Gly Gln Asn Leu Arg Asp Ile Leu Val Thr Leu Gly Tyr Asp Val
 195 200 205
 Asp Ile Pro Trp Lys Glu Leu Ser Glu Glu Glu Arg His Trp Ile Leu
 210 215 220
 Phe Thr Glu Asp Thr Pro Thr Val Pro Val Tyr Pro Gly Leu Ser Pro
 225 230 235 240
 Glu Asp Thr Arg Val Ala Val Arg Glu Lys Met Thr Pro Gly Tyr Met
 245 250 255
 Gly Thr Phe Thr Gly Ala Arg Arg Tyr Val Leu His Thr Phe Ala His
 260 265 270
 Thr Gln Ser Ala Leu Met Arg Lys Arg Val Ser Ser Phe Met Glu Gly
 275 280 285
 Lys Leu Cys Pro Val Cys His Gly Lys Arg Leu Lys Pro Glu Ser Leu
 290 295 300
 Ser Val Thr Phe Ala Gly Val Asp Ile Gly Glu Phe Met Gln Met Pro
 305 310 315 320
 Leu Asp Gln Leu Ala Glu Leu Leu Leu Pro Ile Ser Arg Gly Asp Phe
 325 330 335
 Ser Thr His His Ala Gly Ala Asp Thr Asp Arg Asp Ile Thr Arg Arg
 340 345 350
 Asp Arg Thr Glu Arg Ala Gly Ser Gly Arg Ala Val His Ser Val Thr
 355 360 365
 Pro Asp Val Arg Arg Thr Ser Ala Leu Ser Thr Glu Lys Arg Leu Ala
 370 375 380
 Ala Gln Arg Leu Thr Arg Gly Val Met Asp Arg Leu Tyr Gln Leu Gln
 385 390 395 400

Lys Leu Gly Leu Gly Tyr Leu Thr Leu Asp Arg Thr Thr Pro Thr Leu
 405 410 415
 Ser Ala Gly Glu Leu Gln Arg Leu Arg Leu Ala Thr Gln Leu Ser Ser
 420 425 430
 Met Leu Phe Gly Val Val Tyr Val Leu Asp Glu Pro Ser Ala Gly Leu
 435 440 445
 His Pro Ala Asp Ser His Ala Leu Tyr Asp Ala Leu Glu Asn Leu Arg
 450 455 460
 Asp Ala Gly Asn Ser Val Phe Val Val Glu His Asp Leu Asp Leu Met
 465 470 475 480
 Arg Arg Ala Gln Trp Leu Val Asp Val Gly Pro Ala Ala Gly Glu Gln
 485 490 495
 Gly Gly His Ile Leu Tyr Ser Gly Val Pro Glu Gly Leu Lys Ala Ile
 500 505 510
 Ala Glu Ser Arg Thr Ala Arg Tyr Leu Phe Asp Glu Ile Arg Pro Pro
 515 520 525
 Gln Ser Tyr Ala Arg Gln Pro Ala Gly Trp Leu Lys Leu Gln Asp Ile
 530 535 540
 His Arg His Asn Leu Lys Gly Leu Asp Ala Cys Ile Pro Leu Gly Val
 545 550 555 560
 Leu Thr Ala Val Thr Gly Ile Ser Gly Ser Gly Lys Ser Ser Leu Ile
 565 570 575
 Ala Gln Ala Leu Pro Glu Leu Val Leu Ser Ser Leu Gly His Glu Pro
 580 585 590
 Glu Asp Val Leu Ser Glu Gly Ser Asp Ala Glu Gly Pro Thr Val Thr
 595 600 605
 Glu Lys Thr Tyr Gly Thr Leu Thr Gly Asp Thr Gly Leu Ile Lys Arg
 610 615 620
 Leu Val Gln Val Asp Gln Lys Pro Ile Gly Arg Thr Pro Arg Ser Asn
 625 630 635 640
 Leu Ala Thr Tyr Thr Gly Leu Phe Asp His Ile Arg Lys Leu Phe Ala
 645 650 655
 Gly Thr Pro Ala Ala Lys Asn Tyr His Tyr Asp Ala Gly Gln Phe Ser
 660 665 670
 Phe Asn Val Ala Lys Gly Arg Cys Glu Thr Cys Glu Gly Glu Gly Phe
 675 680 685
 Val Ser Val Glu Leu Leu Phe Met Pro Ser Val Tyr Ala Pro Cys Pro
 690 695 700
 Thr Cys His Gly Ala Arg Tyr Asn Pro Asp Thr Leu Arg Val Arg Trp
 705 710 715 720
 Lys Glu Arg Asn Ile Ala Glu Val Leu Gln Met Thr Val Asp Glu Ala
 725 730 735
 Cys Ser Phe Phe Ala Asp Val Glu Pro Val Ala Arg Pro Leu Arg Leu
 740 745 750
 Leu Gly Glu Ile Gly Leu Gly Tyr Leu Arg Leu Gly Gln Pro Ala Thr
 755 760 765
 Glu Leu Ser Gly Gly Glu Ala Gln Arg Ile Lys Leu Ala Thr Glu Leu
 770 775 780
 Gln Arg Ser Gln Arg Gly His Thr Leu Tyr Val Leu Asp Glu Pro Thr
 785 790 795 800
 Thr Gly Leu His Ala Ser Asp Ala Asp Arg Leu Leu Val Gln Leu Gln
 805 810 815
 Arg Leu Val Glu Thr Gly Asn Thr Val Val Val Ile Glu His Asp Met
 820 825 830
 Arg Ala Val Val Gln Ala Asp Trp Val Met Asp Ile Gly Pro Gly Ala
 835 840 845
 Gly His Glu Gly Gly Asn Leu Val Ala Glu Gly Thr Pro Ala Gln Val
 850 855 860
 Ser Gln Val Cys Glu Ser Arg Thr Ala Pro Phe Ile Ala Arg Glu Leu
 865 870 875 880
 Ser Arg Asn Trp

885

<210> 8049
 <211> 93
 <212> PRT
 <213> Enterobacter cloacae

<400> 8049

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Met | Pro | Ser | Thr | Pro | Glu | Glu | Lys | Lys | Lys | Val | Leu | Thr | Arg | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Arg | Ile | Arg | Gly | Gln | Ile | Asp | Ala | Leu | Glu | Arg | Ala | Leu | Glu | Asn |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ala | Glu | Cys | Arg | Ala | Ile | Leu | Gln | Gln | Ile | Ala | Ala | Val | Arg | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ser | Asn | Gly | Leu | Met | Ala | Glu | Val | Leu | Glu | Ser | His | Ile | Arg | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Phe | Asp | Gln | Asn | Asp | Asn | Tyr | Ser | His | Glu | Val | Ser | Lys | Ser | Val |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Asp | Asp | Thr | Ile | Glu | Leu | Val | Arg | Ala | Tyr | Leu | Lys | | | | |
| | | | | 85 | | | | | 90 | | | | | | |

<210> 8050
 <211> 268
 <212> PRT
 <213> Enterobacter cloacae

<400> 8050

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Val | Leu | Gln | Arg | Ser | Arg | Met | Met | Val | Glu | Leu | Gln | His | Gln | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Met | Val | Leu | Ala | Glu | Gln | Leu | Gln | Leu | Asp | Ser | Leu | Ile | Gly | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Pro | Ala | Leu | Ser | Gln | Gln | Ala | Val | Asp | Gln | Glu | Trp | Ser | Tyr | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asp | Phe | Leu | Glu | His | Leu | Leu | His | Glu | Glu | Lys | Leu | Ala | Arg | His | Gln |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Arg | Lys | Gln | Ala | Met | Tyr | Thr | Arg | Met | Ala | Ala | Phe | Pro | Ala | Val | Lys |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Thr | Phe | Glu | Glu | Tyr | Asp | Phe | Thr | Phe | Ala | Thr | Gly | Ala | Pro | Gln | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Ile | Gln | Ser | Leu | Arg | Ser | Leu | Ser | Phe | Ile | Glu | Arg | Asn | Glu | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Val | Leu | Leu | Gly | Pro | Ser | Gly | Val | Gly | Lys | Thr | His | Leu | Ala | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Met | Gly | Tyr | Glu | Ala | Val | Arg | Ala | Gly | Ile | Lys | Val | Arg | Phe | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Thr | Ala | Ala | Asp | Leu | Leu | Leu | Gln | Leu | Ser | Thr | Ser | Gln | Arg | Gln | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Arg | Tyr | Lys | Thr | Thr | Leu | Asn | Arg | Gly | Val | Met | Ala | Pro | Lys | Leu | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Ile | Asp | Glu | Ile | Gly | Tyr | Leu | Pro | Phe | Ser | Gln | Glu | Glu | Ala | Lys |
| | | 180 | | | | | 185 | | | | | 190 | | | |
| Leu | Phe | Phe | Gln | Val | Ile | Ala | Lys | Arg | Tyr | Glu | Lys | Ser | Ala | Met | Ile |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Thr | Ser | Asn | Leu | Pro | Phe | Gly | Gln | Trp | Asp | Gln | Thr | Phe | Ala | Gly |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Ala | Ala | Leu | Thr | Ser | Ala | Met | Leu | Asp | Arg | Ile | Leu | His | His | Ser |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| His | Val | Val | Gln | Ile | Lys | Gly | Glu | Ser | Tyr | Arg | Leu | Lys | Gln | Lys | Arg |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Lys | Ala | Gly | Val | Ile | Ala | Glu | Ala | Asn | Pro | Glu | | | | | |
| | | | 260 | | | | | 265 | | | | | | | |

<210> 8051
 <211> 73
 <212> PRT
 <213> Enterobacter cloacae

<400> 8051
 Pro Val Asn Lys Ile Tyr Met Leu Asp Thr Asn Ile Cys Ser Phe Ile
 1 5 10 15
 Met Arg Glu Gln Ser Glu Val Val Leu Lys Arg Leu Glu Pro Ala Val
 20 25 30
 Leu Arg Asp Gln Arg Ile Val Val Ser Val Ile Thr Tyr Ser Glu Met
 35 40 45
 Arg Phe Gly Ala Thr Gly Pro Lys Ala Ser Pro Pro Arg Glu Gln Leu
 50 55 60
 Val Asp Ala Phe Cys Val Pro Phe
 65 70

<210> 8052
 <211> 96
 <212> PRT
 <213> Enterobacter cloacae

<400> 8052
 Gln Gly Gln Ser Met Pro His Ser Pro Glu Glu Lys Lys Gln Ala Leu
 1 5 10 15
 Val Arg Val Arg Arg Ile Lys Gly Gln Ile Ala Ala Leu Glu Gln Ala
 20 25 30
 Ile Glu Asn Glu Ala Glu Cys Ser Ser Leu Leu Gln Gln Leu Ala Ser
 35 40 45
 Val Arg Gly Ala Val Lys Gly Leu Met Thr Val Val Leu Glu Ser Tyr
 50 55 60
 Leu Arg Glu Glu Phe Pro Asp Thr Asn Lys Arg Arg Gly Ser Gln Thr
 65 70 75 80
 Lys Ser Ile Asn Asp Ala Ile Ser Ile Val Arg Ser Tyr Leu Arg
 85 90 95

<210> 8053
 <211> 207
 <212> PRT
 <213> Enterobacter cloacae

<400> 8053
 Leu Ser Cys Tyr Val Val Ala Glu Leu Ser Cys Arg Tyr Thr Glu Lys
 1 5 10 15
 Ile Met Glu Arg Leu Glu His His Ala Ser Phe Asp Gly Trp Gln Glu
 20 25 30
 Val Tyr Gln His Glu Ser Gly Thr Leu Gly Cys Thr Met Lys Phe Gly
 35 40 45
 Val Tyr Thr Pro Pro Gln Ala Leu Asn Gly Asn Val Pro Val Leu Tyr
 50 55 60
 Trp Leu Ser Gly Leu Thr Cys Thr Glu Gln Asn Phe Ile Thr Lys Ser
 65 70 75 80
 Ser Val Gln Arg Tyr Ala Ala Glu His Gly Ile Met Ile Val Ala Pro
 85 90 95
 Asp Thr Ser Pro Arg Gly Thr Asp Ile Pro Asp Asp Pro Asp Tyr Ala
 100 105 110
 Leu Gly Gln Gly Ala Gly Phe Tyr Val Asn Ala Thr Gln Glu Pro Trp
 115 120 125
 Ala Thr His Tyr Lys Met Tyr Asp Tyr Val Val Asn Glu Leu Pro Ser
 130 135 140

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ile | Glu | Glu | Trp | Phe | Pro | Ala | Ser | Asp | Lys | Arg | Ser | Ile | Ser | Gly |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| His | Ser | Met | Gly | Gly | His | Gly | Ala | Leu | Met | Ile | Ala | Leu | Arg | Asn | Pro |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Gly | Arg | Tyr | Gln | Ser | Val | Ser | Ala | Phe | Ser | Pro | Ile | Val | Ala | Pro | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gln | Val | Pro | Trp | Gly | Arg | Lys | Cys | Ile | Val | Cys | Leu | Ser | Gly | | |
| | | 195 | | | | | 200 | | | | | 205 | | | |

<210> 8054

<211> 211

<212> PRT

<213> Enterobacter cloacae

<400> 8054

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Asp | Ala | Asp | Asp | Ala | Ala | Gly | Thr | Ala | Cys | Ala | Gly | Cys | Asp |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Gly | Thr | Thr | Cys | Thr | Arg | Thr | Gly | Ser | Gly | Asp | Gly | Val | Asn | Ala | Ala |
| | | | 20 | | | | 25 | | | | | 30 | | | |
| Ala | Ala | Gly | Cys | Ala | Ala | Thr | Ala | Ser | Leu | Gly | Trp | Arg | Ala | Val | |
| | | 35 | | | | | 40 | | | | 45 | | | | |
| Val | Ala | Ser | Tyr | Arg | Ser | Gln | Gly | Arg | Trp | Val | Ile | Trp | Leu | Ser | Phe |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Leu | Val | Ala | Leu | Leu | Leu | Gln | Ile | Met | Pro | Trp | Pro | Asp | Asp | Ile | Leu |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 |
| Val | Phe | Arg | Pro | Asn | Trp | Val | Leu | Leu | Ile | Leu | Leu | Tyr | Trp | Ile | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Leu | Pro | His | Arg | Val | Asn | Val | Gly | Thr | Gly | Phe | Val | Met | Gly | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Leu | Asp | Leu | Ile | Ser | Gly | Ser | Thr | Leu | Gly | Val | Arg | Ala | Leu | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Ser | Ile | Ile | Ala | Tyr | Leu | Val | Ala | Leu | Lys | Phe | Gln | Leu | Phe | Arg |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asn | Leu | Ala | Leu | Trp | Gln | Gln | Ala | Leu | Val | Val | Met | Leu | Leu | Ser | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ala | Asp | Ile | Val | Val | Phe | Trp | Ala | Glu | Phe | Leu | Val | Ile | Asn | Val |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Phe | Arg | Pro | Glu | Val | Phe | Trp | Ser | Ser | Val | Val | Asn | Gly | Val | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Trp | Pro | Trp | Leu | Phe | Leu | Leu | Met | Arg | Lys | Ile | Arg | Gln | Gln | Phe | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Val | Gln | | | | | | | | | | | | | | |
| | 210 | | | | | | | | | | | | | | |

<210> 8055

<211> 201

<212> PRT

<213> Enterobacter cloacae

<400> 8055

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Val | Ser | Met | Thr | Ser | Leu | Tyr | Leu | Ala | Ser | Gly | Ser | Pro | Arg | Arg |
| 1 | | | | 5 | | | | 10 | | | | | 15 | | |
| Gln | Glu | Leu | Leu | Ala | Gln | Leu | Gly | Val | Ser | Phe | Glu | Arg | Ile | Val | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ile | Glu | Glu | Lys | Arg | Ala | Glu | Gly | Glu | Ser | Ala | Gln | Gln | Tyr | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Leu | Ala | Arg | Glu | Lys | Ala | Gln | Ala | Gly | Val | Ala | Cys | Val | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Asp | Leu | Pro | Val | Leu | Gly | Ala | Asp | Thr | Ile | Val | Ile | Leu | Asn | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Glu | Val | Leu | Glu | Lys | Pro | Arg | Asp | Ala | Asp | His | Ala | Ala | Arg | Met | Leu |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 85 | | | | | 90 | | | | 95 | | | |
| Arg | Asn | Met | Ser | Gly | Gln | Thr | His | Gln | Val | Met | Thr | Ala | Val | Ala | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Asp | Ser | Gln | Tyr | Val | Leu | Asp | Cys | Leu | Val | Val | Thr | Glu | Val | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Phe | Arg | Val | Leu | Thr | Asp | Glu | Glu | Ile | Ala | Gly | Tyr | Ile | Ala | Ser | Gly |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Glu | Pro | Met | Asp | Lys | Ala | Gly | Ala | Tyr | Gly | Ile | Gln | Gly | Leu | Gly | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | Phe | Val | Arg | Lys | Ile | Asn | Gly | Ser | Tyr | His | Ala | Val | Val | Gly | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Pro | Leu | Val | Glu | Thr | Tyr | Glu | Leu | Leu | Ser | Asn | Phe | Asn | Ser | Leu | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Gly | Arg | Asp | Asn | Tyr | Asp | Gly | | | | | | | | |
| | | 195 | | | | | 200 | | | | | | | | |

<210> 8056

<211> 482

<212> PRT

<213> Enterobacter cloacae

<400> 8056

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ser | Leu | Asn | Leu | Val | Ser | Glu | His | Leu | Leu | Ala | Ala | Asn | Gly | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | His | Gln | Asp | Leu | Phe | Ser | Ile | Leu | Gly | Gln | Leu | Thr | Glu | Arg | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Asp | Tyr | Gly | Asp | Leu | Tyr | Phe | Gln | Ser | Ser | Tyr | His | Glu | Ser | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Leu | Glu | Asp | Ser | Ile | Ile | Lys | Asp | Gly | Ser | Tyr | Asn | Ile | Asp | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Val | Gly | Val | Arg | Ala | Val | Ser | Gly | Glu | Lys | Thr | Gly | Phe | Ala | Tyr |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Asp | Gln | Ile | Ser | Leu | Ala | Ala | Leu | Glu | Gln | Ser | Ala | Gln | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Thr | Ile | Val | Arg | Asp | Thr | Gly | Asp | Gly | Arg | Val | Lys | Thr | Leu | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Val | Gln | His | Ala | Ala | Leu | Tyr | Thr | Ser | Ile | Asp | Pro | Leu | Gln | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Ser | Arg | Glu | Glu | Lys | Leu | Asp | Ile | Leu | Arg | Arg | Val | Asp | Lys | Val |
| | | 130 | | | | 135 | | | | | | 140 | | | |
| Ala | Arg | Ala | Ala | Asp | Lys | Arg | Val | Gln | Glu | Val | Ser | Ala | Ser | Leu | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Val | Tyr | Glu | Leu | Ile | Leu | Val | Ala | Ala | Thr | Asp | Gly | Thr | Leu | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Asp | Val | Arg | Pro | Leu | Val | Arg | Leu | Ser | Ile | Ser | Val | Gln | Val | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Asp | Gly | Lys | Arg | Glu | Arg | Gly | Ser | Ser | Gly | Gly | Gly | Gly | Arg | Phe |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Tyr | Asp | Trp | Phe | Leu | Gly | Asp | Val | Asp | Gly | Glu | Ala | Arg | Ala | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Trp | Ala | Lys | Glu | Ala | Val | Arg | Met | Ala | Leu | Val | Asn | Leu | Ser | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Val | Ala | Ala | Pro | Ala | Gly | Thr | Leu | Pro | Val | Val | Leu | Gly | Ala | Gly | Trp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Pro | Gly | Val | Leu | Leu | His | Glu | Ala | Val | Gly | His | Gly | Leu | Glu | Gly | Asp |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Asn | Arg | Arg | Gly | Thr | Ser | Val | Phe | Ser | Gly | Gln | Met | Gly | Gln | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | Ser | Ser | Glu | Leu | Cys | Thr | Val | Val | Asp | Asp | Gly | Thr | Met | Leu | Asp |
| | | 290 | | | | 295 | | | | | 300 | | | | |
| Arg | Arg | Gly | Ser | Ile | Ser | Ile | Asp | Asp | Glu | Gly | Thr | Pro | Gly | Gln | Tyr |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Asn | Val | Leu | Ile | Glu | Asn | Gly | Val | Leu | Lys | Gly | Tyr | Met | Gln | Asp | Lys |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Asn | Ala | Arg | Leu | Met | Gly | Val | Ala | Pro | Thr | Gly | Asn | Gly | Arg | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Ser | Tyr | Ala | His | Leu | Pro | Met | Pro | Arg | Met | Thr | Asn | Thr | Tyr | Met |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Pro | Gly | Lys | Ser | Thr | Pro | Gln | Glu | Ile | Ile | Glu | Ser | Val | Asp | Tyr |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Ile | Phe | Ala | Pro | Asn | Phe | Gly | Gly | Gly | Gln | Val | Asp | Ile | Thr | Ser |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Lys | Phe | Val | Phe | Ser | Thr | Ser | Glu | Ala | Tyr | Leu | Ile | Glu | Lys | Gly |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Lys | Val | Thr | Lys | Ala | Val | Lys | Gly | Ala | Thr | Leu | Ile | Gly | Ser | Gly | Ile |
| | | | 420 | | | | 425 | | | | | | 430 | | |
| Glu | Ala | Met | Gln | Gln | Ile | Ser | Met | Val | Gly | Asn | Asp | Leu | Lys | Leu | Asp |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Asn | Gly | Val | Gly | Val | Cys | Gly | Lys | Glu | Gly | Gln | Ser | Leu | Pro | Val | Gly |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Val | Gly | Gln | Pro | Thr | Leu | Lys | Val | Asp | Asn | Leu | Thr | Val | Gly | Gly | Thr |
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<211> 77

<212> PRT

<213> Enterobacter cloacae

<400> 8057

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| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Val | Val | Phe | Gly | Leu | Ser | Phe | Pro | Pro | Ile | Phe | Phe | Glu | Leu | Leu | Leu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Ser | Leu | Ala | Ile | Phe | Trp | Leu | Val | Arg | Lys | Val | Leu | Val | Pro | Thr | Gly |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Ile | Tyr | Asp | Phe | Val | Trp | His | Pro | Ala | Leu | Phe | Asn | Thr | Ala | Leu | Tyr |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Cys | Cys | Leu | Phe | Tyr | Leu | Ile | Ser | Arg | Met | Phe | Val | | | | |
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<210> 8058

<211> 677

<212> PRT

<213> Enterobacter cloacae

<400> 8058

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| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Val | Trp | Leu | Ile | Ala | Met | Gly | Ile | Phe | Ser | Ile | Ala | Ser | Gln | His | Ile |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Arg | Phe | Ala | Val | Lys | Leu | Ala | Cys | Ala | Ile | Val | Leu | Ala | Leu | Phe | Val |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gly | Phe | His | Phe | Gln | Leu | Glu | Thr | Pro | Arg | Trp | Ala | Val | Leu | Thr | Ala |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Ala | Ile | Val | Ala | Ala | Gly | Pro | Ala | Phe | Ala | Ala | Gly | Gly | Glu | Pro | Tyr |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Ser | Gly | Ala | Ile | Arg | Tyr | Arg | Gly | Met | Leu | Arg | Ile | Ile | Gly | Thr | Phe |
| | | | 85 | | | | 90 | | | | | | 95 | | |
| Ile | Gly | Cys | Ile | Ala | Ala | Leu | Thr | Ile | Ile | Ile | Leu | Met | Ile | Arg | Thr |
| | | | 100 | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | |
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| Pro | Leu | Leu | Met | Leu | Ile | Val | Cys | Cys | Ile | Trp | Ala | Gly | Phe | Cys | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Trp | Val | Ser | Ser | Leu | Val | Lys | Val | Glu | Asn | Ser | Tyr | Ala | Trp | Gly | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Gly | Tyr | Thr | Ala | Leu | Ile | Ile | Ile | Ile | Thr | Ile | Gln | Ser | Glu | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Leu | Ala | Pro | Gln | Phe | Ala | Val | Glu | Arg | Cys | Ser | Glu | Ile | Val | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Ile | Val | Cys | Ala | Ile | Val | Ala | Asp | Leu | Leu | Phe | Ser | Pro | Arg | Ser |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ile | Lys | Gln | Glu | Val | Asp | Arg | Glu | Leu | Asp | Ala | Leu | Ile | Val | Ala | Gln |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Tyr | Gln | Leu | Met | Gln | Leu | Cys | Ile | Lys | His | Gly | Asp | Ser | Glu | Glu | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Lys | Ala | Trp | Ser | Ala | Leu | Val | Arg | Arg | Thr | Gln | Ala | Leu | Glu | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Met | Arg | Ser | Asn | Leu | Asn | Met | Glu | Ser | Ser | Arg | Trp | Glu | Arg | Ala | Asn |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Arg | Arg | Leu | Lys | Ala | Ile | Asn | Thr | Val | Ser | Leu | Thr | Leu | Ile | Thr | Gln |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ala | Cys | Glu | Thr | Tyr | Leu | Ile | Gln | Asn | Thr | Arg | Pro | Glu | Val | Val | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Thr | Phe | Arg | Glu | Leu | Phe | Asp | Glu | Pro | Val | Glu | Thr | Val | Gln | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | His | Arg | Gln | Leu | Lys | Arg | Met | Arg | Arg | Val | Ile | Ala | Trp | Thr | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Glu | Arg | Asp | Thr | Pro | Val | Thr | Ile | Tyr | Thr | Trp | Val | Gly | Ala | Ala | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Tyr | Leu | Leu | Leu | Lys | Arg | Gly | Val | Ile | Ser | Asn | Thr | Lys | Ile | Ser |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Ala | Ala | Glu | Glu | Glu | Val | Leu | Gln | Gly | Glu | Val | Val | Ile | Lys | Pro | Glu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Ala | Glu | Arg | His | His | Ala | Met | Val | Asn | Phe | Trp | Arg | Thr | Thr | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ala | Cys | Ile | Leu | Gly | Thr | Leu | Phe | Trp | Leu | Trp | Thr | Gly | Trp | Thr | Ser |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Gly | Ser | Gly | Ala | Met | Val | Met | Ile | Ala | Val | Val | Thr | Ala | Leu | Ala | Met |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Arg | Leu | Pro | Asn | Pro | Arg | Met | Val | Ala | Ile | Asp | Phe | Leu | Tyr | Gly | Thr |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ile | Ala | Ala | Leu | Pro | Ile | Gly | Ala | Leu | Tyr | Phe | Leu | Val | Ile | Ile | Pro |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Ser | Thr | Gln | Gln | Ser | Met | Leu | Leu | Leu | Cys | Ile | Ser | Leu | Ala | Val | Met |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Ala | Phe | Phe | Ile | Gly | Ile | Glu | Val | Gln | Lys | Arg | Arg | Leu | Gly | Ser | Leu |
| 465 | | | | 470 | | | | | | 475 | | | | | 480 |
| Gly | Ala | Leu | Ala | Ser | Thr | Ile | Asn | Ile | Ile | Val | Leu | Asp | Asn | Pro | Met |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Thr | Phe | His | Phe | Ser | Gln | Phe | Leu | Asp | Ser | Ala | Leu | Gly | Gln | Leu | Val |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Gly | Cys | Phe | Leu | Ala | Met | Met | Val | Ile | Leu | Leu | Val | Arg | Asp | Asn | Ser |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Gln | Ala | Arg | Thr | Gly | Arg | Val | Leu | Leu | Asn | Gln | Phe | Val | Ser | Ala | Ala |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Val | Ser | Ser | Leu | Thr | Thr | Asn | Thr | Ala | Arg | Arg | Lys | Glu | Asn | His | Leu |
| 545 | | | | 550 | | | | | | 555 | | | | | 560 |
| Pro | Ala | Leu | Tyr | Gln | Gln | Leu | Phe | Leu | Leu | Asn | Lys | Phe | Pro | Gly | |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Asp | Val | Ala | Arg | Phe | Arg | Leu | Ala | Leu | Thr | Met | Ile | Ile | Ala | His | Gln |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Arg | Leu | Arg | Asn | Ala | Pro | Val | Pro | Ile | Asn | Asp | Asp | Leu | Ser | Ala | Phe |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 595 | | 600 | | 605 | | | | | | | | | | |
| His | Arg | Gln | Leu | Arg | Arg | Thr | Ala | Asp | His | Val | Ile | Ser | Ala | Ser | Ser |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Asp | Asp | Lys | Arg | Arg | Arg | Tyr | Phe | Lys | Gln | Leu | Leu | Glu | Glu | Leu | Asp |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Ile | Tyr | Gln | Glu | Lys | Leu | Arg | Ile | Trp | Glu | Ala | Pro | Pro | Gln | Val | Thr |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Glu | Pro | Val | Glu | Arg | Leu | Val | Phe | Met | Leu | His | Arg | Tyr | Gln | Asn | Ala |
| | | | 660 | | | | | 665 | | | | | 670 | | |
| Leu | Thr | Asp | Ser | | | | | | | | | | | | |
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<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 8059

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| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Ala | Gly | Gly | Ile | Gly | Gln | Ala | Leu | Ala | Leu | Leu | Leu | Lys | Thr | Gln | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Pro | Ser | Gly | Ser | Glu | Leu | Ser | Leu | Tyr | Asp | Ile | Ala | Pro | Val | Thr | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Val | Ala | Val | Asp | Leu | Ser | His | Ile | Pro | Thr | Ala | Val | Lys | Ile | Lys |
| 50 | | | | | | 55 | | | | | 60 | | | | |
| Gly | Phe | Ser | Gly | Glu | Asp | Ala | Arg | Pro | Ala | Leu | Gln | Gly | Ala | Asp | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Val | Leu | Ile | Ser | Ala | Gly | Val | Ala | Arg | Lys | Pro | Gly | Met | Asp | Arg | Ser |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asp | Leu | Phe | Asn | Val | Asn | Ala | Gly | Ile | Val | Lys | Asn | Leu | Val | Gln | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | Ala | Glu | Thr | Cys | Pro | Lys | Ala | Cys | Ile | Gly | Ile | Ile | Thr | Asn | Pro |
| | 115 | | | | | | 120 | | | | | | 125 | | |
| Val | Asn | Thr | Thr | Val | Ala | Ile | Ala | Ala | Glu | Val | Leu | Lys | Lys | Ala | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Tyr | Asp | Lys | Asn | Lys | Leu | Phe | Gly | Val | Thr | Leu | Asp | Ile | Ile | |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Arg | Ser | Asn | Thr | Phe | Val | Ala | Glu | Leu | Lys | Gly | Lys | Gln | Pro | Thr | Glu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Val | Glu | Val | Pro | Val | Ile | Gly | Gly | His | Ser | Gly | Val | Thr | Ile | Leu | Pro |
| | 180 | | | | | | 185 | | | | | | 190 | | |
| Leu | Leu | Ser | Gln | Ile | Pro | Gly | Val | Ser | Phe | Thr | Glu | Gln | Glu | Val | Ala |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Asp | Leu | Thr | Lys | Arg | Ile | Gln | Asn | Ala | Gly | Thr | Glu | Val | Val | Glu | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Lys | Ala | Gly | Gly | Gly | Ser | Ala | Thr | Leu | Ser | Met | Gly | Gln | Ala | Ala | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Phe | Gly | Leu | Ser | Leu | Val | Arg | Ala | Leu | Gln | Gly | Glu | Lys | Gly | Val |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Val | Glu | Cys | Ala | Tyr | Val | Glu | Gly | Asp | Gly | Glu | His | Ala | Arg | Phe | Phe |
| | 260 | | | | | | 265 | | | | | | 270 | | |
| Ser | Gln | Pro | Leu | Leu | Leu | Gly | Lys | Asn | Gly | Val | Glu | Glu | Arg | Lys | Ser |
| | 275 | | | | | | 280 | | | | | | 285 | | |
| Ile | Gly | Thr | Leu | Ser | Ala | Phe | Glu | Gln | Asn | Ala | Met | Glu | Gly | Met | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asp | Thr | Leu | Lys | Lys | Asp | Ile | Thr | Leu | Gly | Glu | Glu | Phe | Val | Asn | Lys |
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 <211> 340
 <212> PRT
 <213> Enterobacter cloacae

<400> 8060

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20      25      30
Leu Gly Thr Phe Ser Gln Ile Arg Thr Tyr Met Asp Thr Ala Val Ser
35      40      45
Pro Phe Tyr Phe Ile Ser Asn Gly Pro Arg Glu Leu Leu Asp Ser Val
50      55      60
Ser Gln Thr Leu Ser Ser Arg Asp Gln Leu Glu Leu Glu Asn Arg Ala
65      70      75      80
Leu Arg Gln Glu Leu Leu Leu Lys Asn Ser Glu Leu Leu Met Leu Gly
85      90      95
Gln Tyr Lys Gln Glu Asn Ala Arg Leu Arg Glu Leu Leu Gly Ser Pro
100     105     110
Leu Arg Gln Asp Glu Gln Lys Met Val Thr Gln Val Ile Ser Thr Val
115     120     125
Asn Asp Pro Tyr Ser Asp Gln Val Val Ile Asp Lys Gly Ser Val Asn
130     135     140
Gly Val Tyr Glu Gly Gln Pro Val Ile Ser Asp Lys Gly Val Val Gly
145     150     155     160
Gln Val Val Ala Val Ala Lys Leu Thr Ser Arg Val Leu Leu Ile Cys
165     170     175
Asp Ala Thr His Ala Leu Pro Ile Gln Val Leu Arg Asn Asp Ile Arg
180     185     190
Val Ile Ala Ala Gly Asn Gly Cys Thr Asp Asp Leu Gln Leu Glu His
195     200     205
Leu Pro Ala Asn Thr Asp Ile Arg Val Gly Asp Val Leu Val Thr Ser
210     215     220
Gly Leu Gly Gly Arg Phe Pro Glu Gly Tyr Pro Val Ala Val Val Ser
225     230     235     240
Ser Val Lys Leu Asp Thr Gln Arg Ala Tyr Thr Val Ile Gln Ala Arg
245     250     255
Pro Thr Ala Gly Leu Gln Arg Leu Arg Tyr Leu Leu Leu Leu Trp Gly
260     265     270
Ala Asp Arg Asn Gly Ala Asn Pro Met Thr Pro Glu Asp Val His Arg
275     280     285
Val Ala Asn Glu Arg Leu Met Gln Met Met Pro Gln Val Leu Pro Ala
290     295     300
Pro Asp Ala Met Gly Pro Pro Ala Pro Val Pro Ala Pro Ala Thr Gly
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Leu Thr Gln Pro Leu Pro Asp Ala Pro Pro Pro Gln Val Ser Gly
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Gly Gly Gln
340

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 <211> 502
 <212> PRT
 <213> Enterobacter cloacae

<400> 8061

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Leu Leu Val Asn Val Thr Pro Ser Glu Thr Arg Val Ala Tyr Ile Asp
20      25      30

```


| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Gly | Ile | Leu | Gln | Glu | Ile | His | Ile | Glu | Arg | Glu | Ala | Arg | Arg | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Val | Gly | Asn | Ile | Tyr | Lys | Gly | Arg | Val | Ser | Arg | Val | Leu | Pro | Gly |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| Met | Gln | Ala | Ala | Phe | Val | Asp | Ile | Gly | Leu | Asp | Lys | Ala | Ala | Phe | Leu |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| His | Ala | Ser | Asp | Ile | Met | Pro | His | Thr | Glu | Cys | Val | Ala | Gly | Glu | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gln | Lys | Gln | Phe | Ala | Val | Arg | Asp | Ile | Ser | Glu | Leu | Val | Arg | Gln | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Asp | Leu | Met | Val | Gln | Val | Val | Lys | Asp | Pro | Leu | Gly | Thr | Lys | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ala | Arg | Leu | Thr | Thr | Asp | Ile | Thr | Leu | Pro | Ser | Arg | Tyr | Leu | Val | Phe |
| | 130 | | | | | 135 | | | | 140 | | | | | |
| Met | Pro | Gly | Ala | Ser | His | Val | Gly | Val | Ser | Gln | Arg | Ile | Glu | Ser | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Ser | Glu | Arg | Glu | Arg | Leu | Lys | Lys | Val | Val | Ser | Ala | Tyr | Cys | Asp | Glu |
| | | | | 165 | | | | 170 | | | | | | 175 | |
| Gln | Gly | Gly | Phe | Ile | Ile | Arg | Thr | Ala | Ala | Glu | Gly | Ile | Ser | Glu | Glu |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Asp | Leu | Ala | Ser | Asp | Ala | Ala | Tyr | Leu | Lys | Arg | Val | Trp | Thr | Lys | Val |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Met | Glu | Arg | Lys | Lys | Arg | Asn | Gln | Thr | Arg | Tyr | Arg | Leu | Tyr | Gly | Glu |
| | 210 | | | | | 215 | | | | 220 | | | | | |
| Leu | Ala | Leu | Ala | Gln | Arg | Val | Leu | Arg | Asp | Phe | Ala | Asp | Ala | Gln | Leu |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Asp | Arg | Ile | Arg | Val | Asp | Ser | Arg | Leu | Thr | Tyr | Glu | Ala | Leu | Leu | Glu |
| | | | | 245 | | | | 250 | | | | | | 255 | |
| Phe | Thr | Ala | Glu | Tyr | Ile | Pro | Glu | Met | Pro | Gly | Leu | Leu | Glu | His | Tyr |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Thr | Gly | Arg | Gln | Pro | Ile | Phe | Asp | Leu | Tyr | Asp | Val | Glu | Asn | Glu | Ile |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Gln | Arg | Ala | Leu | Glu | Arg | Lys | Val | Glu | Leu | Lys | Ser | Gly | Gly | Tyr | Leu |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Ile | Ile | Asp | Gln | Thr | Glu | Ala | Met | Thr | Thr | Val | Asp | Ile | Asn | Thr | Gly |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Ala | Phe | Val | Gly | His | Arg | Asn | Leu | Asp | Asp | Thr | Ile | Phe | Asn | Thr | Asn |
| | | | | 325 | | | | 330 | | | | | | 335 | |
| Ile | Glu | Ala | Thr | Gln | Ala | Ile | Ala | Arg | Gln | Leu | Arg | Leu | Arg | Asn | Leu |
| | | | 340 | | | | 345 | | | | | | 350 | | |
| Gly | Gly | Ile | Ile | Ile | Ile | Asp | Phe | Ile | Asp | Met | Asn | Asn | Glu | Asp | His |
| | 355 | | | | | 360 | | | | 365 | | | | | |
| Arg | Arg | Arg | Val | Leu | His | Ser | Leu | Glu | Gln | Ala | Leu | Ser | Lys | Asp | Arg |
| | 370 | | | | | 375 | | | | 380 | | | | | |
| Val | Lys | Thr | Ser | Ile | | | | | | | | | | | |

<210> 8062
 <211> 1283
 <212> PRT
 <213> Enterobacter cloacae

<400> 8062

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Thr Gln Phe Ala Ala Arg Phe Lys Ala Asp Lys Glu Arg Arg Val Arg
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20      25      30
Val Ala Leu Leu Val Ser Gly Leu Arg Leu Ala Leu Pro His Leu Asp
35      40      45
Ser Trp Arg Pro Gln Ile Leu Ala Lys Ile Glu Ser Ala Thr Gly Leu
50      55      60
Pro Val Asp Val Ser His Ile Glu Ala Ser Trp Gln Asn Phe Gly Pro
65      70      75      80
Thr Leu Asp Ala Arg Asp Ile His Ala Ser Leu Lys Asp Gly Gly His
85      90      95
Leu Lys Ile Lys Arg Val Thr Leu Ala Leu Asp Val Trp Gln Ser Leu
100     105     110
Leu His Leu Arg Trp Gln Phe Arg Asp Leu Thr Phe Trp Gln Leu Gln
115     120     125
Leu Met Thr Asn Thr Pro Leu Gln Ser Gly Asp Ser Asp Arg Gly Leu
130     135     140
Glu Thr Ser Arg Ile Ser Asp Leu Phe Leu Arg Gln Phe Asp His Phe
145     150     155     160
Asp Leu Arg Asp Ser Glu Val Ser Phe Ile Thr Leu Ser Gly Gln Arg
165     170     175
Ala Glu Leu Ala Ile Pro Gln Leu Thr Trp Leu Asn Gly Lys Asp Arg
180     185     190
His Arg Ala Glu Gly Gln Val Asn Leu Ser Ser Leu Asn Gly Gln His
195     200     205
Gly Val Met Gln Val Arg Met Asp Leu Arg Asp Asp Asn Gly Leu Leu
210     215     220
Asn Asn Gly Arg Val Trp Leu Gln Ala Asp Asp Val Asp Val Lys Pro
225     230     235     240
Trp Leu Gly Glu Leu Leu Gln Gln Asn Met Gln Leu Glu Thr Ala Arg
245     250     255
Phe Ser Leu Glu Gly Trp Met Thr Leu Thr Asn Gly Ala Phe Ala Ser
260     265     270
Gly Asp Ile Trp Leu Lys Gln Gly Gly Ala Ser Trp Lys Gly Glu Asn
275     280     285
His Gln His Gln Leu Ser Val Asp Asn Leu Thr Ala His Val Thr Gln
290     295     300
Asp Lys Gly Gly Trp Gln Phe Ala Ile Pro Asp Thr Arg Ile Ser Met
305     310     315     320
Asp Asn Lys Pro Trp Pro Arg Gly Ala Leu Thr Leu Ala Trp Met Pro
325     330     335
Glu Gln Asp Val Gly Gly Ile Asn Gly Lys Arg Ser Asp Glu Leu Arg
340     345     350
Ile Arg Ala Ser Asn Leu Asp Leu Thr Ala Ile Glu Gly Leu Arg Ser
355     360     365
Met Ala Ala Lys Leu Ser Pro Glu Leu Gly Glu Ile Trp Leu Ala Thr
370     375     380
Gln Pro Ser Gly Gln Ile Asn Arg Leu Ala Leu Asp Ile Pro Leu Gln
385     390     395     400
Ala Thr Glu Lys Thr Arg Phe Gln Ala Ala Trp Lys Asn Leu Ala Trp
405     410     415
Lys Gln Trp Lys Leu Leu Pro Gly Ala Glu His Phe Ser Gly Lys Leu
420     425     430
Glu Gly Ser Val Glu Asn Gly Arg Leu Thr Ala Glu Met Gln Asp Ala

```


| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Lys | Met | Pro | Tyr | Glu | Thr | Val | Phe | Arg | Ala | Pro | Leu | Glu | Ile | Glu | Lys | |
| | 450 | | | | | 455 | | | | | 460 | | | | | |
| Gly | Asn | Ala | Thr | Leu | Asn | Trp | Leu | Lys | Asn | Asp | Lys | Gly | Phe | Gln | Leu | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Asp | Gly | Arg | Asp | Ile | Asp | Val | Lys | Ala | Lys | Ala | Val | His | Ala | Arg | Gly | |
| | | | | 485 | | | | | 490 | | | | | 495 | | |
| Asn | Phe | Arg | Tyr | Leu | Gln | Pro | Glu | Gly | Asp | Glu | Pro | Trp | Leu | Gly | Ile | |
| | | | 500 | | | | | 505 | | | | | 510 | | | |
| Leu | Ala | Gly | Ile | Ser | Thr | Asp | Asp | Gly | Ser | Gln | Ala | Trp | Arg | Tyr | Phe | |
| | | 515 | | | | | 520 | | | | | 525 | | | | |
| Pro | Glu | Asn | Leu | Met | Gly | Lys | Ala | Leu | Val | Asp | Tyr | Leu | Ser | Gly | Ala | |
| | 530 | | | | | 535 | | | | | 540 | | | | | |
| Ile | Gln | Gly | Gly | Gln | Ala | Asp | Asn | Ala | Thr | Leu | Val | Tyr | Gly | Gly | Asn | |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 | |
| Pro | His | Leu | Phe | Pro | Tyr | Lys | His | Asn | Glu | Gly | Gln | Phe | Gln | Val | Leu | |
| | | | | 565 | | | | | 570 | | | | | 575 | | |
| Val | Pro | Leu | Arg | Asn | Ala | Thr | Tyr | Ala | Phe | Gln | Pro | Asp | Trp | Pro | Ala | |
| | | | 580 | | | | | 585 | | | | | 590 | | | |
| Leu | Lys | Asn | Leu | Asp | Ile | Glu | Leu | Asn | Phe | Leu | Asn | Asp | Gly | Leu | Trp | |
| | | 595 | | | | | 600 | | | | | 605 | | | | |
| Met | Lys | Thr | Asp | Ser | Val | Ala | Leu | Gly | Gly | Val | Thr | Ala | Ser | Asn | Leu | |
| | 610 | | | | | 615 | | | | | 620 | | | | | |
| Thr | Ala | Asn | Ile | Pro | Asp | Tyr | Ser | Lys | Glu | Lys | Leu | Leu | Ile | Asp | Ala | |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 | |
| Asp | Ile | Lys | Gly | Pro | Gly | Lys | Ala | Val | Gly | Pro | Tyr | Phe | Glu | Asp | Thr | |
| | | | | 645 | | | | | 650 | | | | | 655 | | |
| Pro | Leu | Asn | Asp | Ser | Leu | Ala | Ala | Thr | Leu | Gln | Gln | Leu | Gln | Leu | Asp | |
| | | | 660 | | | | | 665 | | | | | | 670 | | |
| Gly | Asp | Val | Asn | Ala | Arg | Leu | His | Leu | Asp | Ile | Pro | Leu | Asp | Gly | Glu | |
| | | 675 | | | | | 680 | | | | | 685 | | | | |
| Leu | Thr | Thr | Ala | Lys | Gly | Asp | Val | Arg | Leu | Asn | Asn | Asn | Ser | Leu | Tyr | |
| | 690 | | | | | 695 | | | | | 700 | | | | | |
| Ile | Lys | Pro | Leu | Asp | Ser | Thr | Leu | Lys | Asn | Leu | Ser | Gly | Gln | Phe | Ser | |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 | |
| Phe | Val | Asn | Gly | Thr | Leu | Lys | Ser | Glu | Pro | Leu | Lys | Ala | Thr | Trp | Phe | |
| | | | | 725 | | | | | 730 | | | | | 735 | | |
| Asn | Gln | Pro | Val | Asn | Ile | Asp | Phe | Ser | Thr | Thr | Glu | Gly | Asp | Lys | Ala | |
| | | | 740 | | | | | 745 | | | | | 750 | | | |
| Tyr | Gln | Val | Ala | Val | Asn | Met | Asp | Ala | Asn | Trp | Gln | Pro | Ser | Arg | Met | |
| | | 755 | | | | | 760 | | | | | 765 | | | | |
| Asp | Val | Leu | Pro | Lys | Pro | Ile | Glu | Asn | Ala | Val | Asp | Gly | Ala | Val | Ser | |
| | 770 | | | | | 775 | | | | | 780 | | | | | |
| Trp | Asn | Gly | Lys | Val | Ala | Ile | Asp | Leu | Pro | Tyr | His | Ala | Gly | Ala | Arg | |
| 785 | | | | | | | | | | | | | | | | |

Leu Gly Gly Gln Gln Trp Asn Asn Leu Ser Ile Val Ser Arg Pro Thr
 930 935 940
 Val Asn Gly Ser Lys Val Glu Ala Gln Gly Arg Glu Ile Asn Gly Ser
 945 950 955 960
 Leu Ile Met Arg Asp His Ala Pro Trp Gln Ala Ala Ile Arg Tyr Leu
 965 970 975
 Tyr Tyr Asn Pro Thr Phe Thr Ala Ser Lys Ala Glu Ser Thr Ser Thr
 980 985 990
 Ser Pro Val Ser Gly Ser Gly Thr Ser Arg Val Asp Phe Ser Gly Trp
 995 1000 1005
 Pro Asp Leu Gln Leu Arg Cys Ala Glu Cys Trp Leu Trp Gly Gln Lys
 1010 1015 1020
 Tyr Gly Arg Ile Asp Gly Asp Phe Ala Ile Gln Gly Asn Thr Leu Ser
 1025 1030 1035 1040
 Leu Ser Gly Gly Leu Val Asp Thr Gly Phe Gly Arg Met Thr Ala Ala
 1045 1050 1055
 Gly Glu Trp Val Asn Lys Pro Gly Glu Gln Arg Thr Ser Leu Lys Gly
 1060 1065 1070
 Asp Ile Lys Gly Asn Lys Leu Asp Ala Ala Ala Asn Phe Phe Gly Ile
 1075 1080 1085
 Ser Thr Pro Leu Arg Gly Ser Ser Phe Asp Val Asn Tyr Asp Leu His
 1090 1095 1100
 Trp Arg Ala Ala Pro Trp Thr Pro Asp Glu Ala Ser Leu Asn Gly Ile
 1105 1110 1115 1120
 Leu Lys Thr Asn Phe Gly Lys Gly Glu Ile Ala Asp Val Ser Thr Gly
 1125 1130 1135
 Arg Ala Gly Gln Ile Leu Arg Leu Leu Ser Phe Asp Ala Leu Leu Arg
 1140 1145 1150
 Lys Leu Arg Phe Asp Phe Ser Asp Thr Phe Ser Glu Gly Phe Tyr Tyr
 1155 1160 1165
 Asp Ser Ile Arg Ser Thr Ala Trp Ile Lys Asp Gly Val Leu His Thr
 1170 1175 1180
 Asp Asp Thr Leu Val Asp Gly Leu Glu Ala Asp Ile Ala Met Lys Gly
 1185 1190 1195 1200
 Ser Val Asn Leu Val Arg Arg Glu Leu Asp Met Glu Ala Val Val Ala
 1205 1210 1215
 Pro Glu Ile Ser Ala Ser Val Gly Val Ala Ala Ala Phe Val Val Asn
 1220 1225 1230
 Pro Ile Val Gly Ala Ala Val Phe Ala Ala Ser Lys Val Leu Gly Pro
 1235 1240 1245
 Leu Trp Ser Lys Val Ser Ile Leu Arg Tyr Arg Ile Thr Gly Pro Val
 1250 1255 1260
 Asp Lys Pro Gln Ile Asn Glu Val Leu Arg Gln Pro Arg Lys Glu Ala
 1265 1270 1275 1280
 Pro Gln

<210> 8063

<211> 320

<212> PRT

<213> Enterobacter cloacae

<400> 8063

Tyr Arg Ala Cys Leu Ser Glu Val Asp Val Lys Thr Leu Thr Arg Lys
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 Ile Ser Arg Thr Ala Ile Thr Met Ala Leu Val Ile Leu Ala Phe Ile
 20 25 30
 Ala Ile Phe Arg Ala Trp Val Tyr Thr Glu Ser Pro Trp Thr Arg
 35 40 45
 Asp Ala Arg Phe Ser Ala Glu Val Val Ala Ile Ala Pro Asp Val Ala
 50 55 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Leu | Ile | Thr | Ala | Val | Asn | Val | His | Asp | Asn | Gln | Leu | Val | Lys | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Gln | Val | Leu | Phe | Thr | Ile | Asp | Gln | Pro | Arg | Tyr | Gln | Lys | Ala | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Glu | Ala | Glu | Ala | Asp | Val | Ala | Tyr | Tyr | Asn | Ala | Leu | Ala | Ser | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Arg | Arg | Glu | Ala | Gly | Arg | Arg | Asn | Lys | Leu | Gly | Ile | Gln | Ala | Met |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Ser | Arg | Glu | Glu | Ile | Asp | Gln | Ser | Asn | Asn | Val | Leu | Gln | Thr | Val | Leu |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| His | Gln | Leu | Ala | Lys | Ala | Gln | Ala | Thr | Arg | Asp | Leu | Ala | Lys | Leu | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Glu | Arg | Thr | Val | Ile | Arg | Ala | Pro | Ser | Asp | Gly | Trp | Val | Thr | Asn |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Leu | Asn | Val | Tyr | Ala | Gly | Glu | Phe | Ile | Thr | Arg | Gly | Ser | Thr | Ala | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Leu | Val | Lys | Gln | Asn | Ser | Phe | Tyr | Val | Leu | Ala | Tyr | Met | Glu | Glu |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Thr | Lys | Leu | Glu | Gly | Val | Arg | Pro | Gly | Tyr | Arg | Ala | Glu | Ile | Thr | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gly | Ser | Asn | Arg | Val | Leu | Lys | Gly | Thr | Val | Asp | Ser | Val | Ala | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Val | Thr | Asn | Ser | Ser | Ser | Thr | Asn | Asp | Ser | Lys | Gly | Met | Ala | Thr |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Asp | Ser | Asn | Leu | Glu | Trp | Val | Arg | Leu | Ala | Gln | Arg | Val | Pro | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Arg | Ile | Arg | Leu | Asp | Glu | Gln | Gln | Ser | Asn | Leu | Trp | Pro | Ala | Gly | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Ala | Thr | Val | Val | Ile | Thr | Gly | Glu | Lys | Asp | Arg | Asp | Ala | Ser | Gln |
| | 290 | | | | | 295 | | | | 300 | | | | | |
| Asp | Ser | Ile | Phe | Arg | Gln | Ile | Ala | His | Arg | Leu | Arg | Glu | Phe | Gly | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |

<210> 8064

<211> 661

<212> PRT

<213> Enterobacter cloacae

<400> 8064

| | | | | | | | | | | | | | | | |
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| Cys | Ser | Leu | Ala | Pro | Pro | Ser | Thr | His | Gly | Val | Ile | Ser | Arg | Met | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Thr | Thr | Lys | Phe | Ser | Ala | Phe | Ile | Thr | Leu | Leu | Thr | Gly | Leu | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Phe | Val | Thr | Leu | Ile | Gly | Cys | Ser | Leu | Ser | Phe | Tyr | Asn | Ala | Ile |
| | | 35 | | | | 40 | | | | | 45 | | | | |
| Gln | Asp | Lys | Leu | Val | Asn | Arg | Val | Glu | Ser | Val | Ala | Ser | Val | Ile | Asp |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Thr | Arg | Leu | Ile | Thr | Ser | Phe | Pro | Ala | Leu | Ser | Arg | Glu | Leu | Asp | |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Glu | Leu | Met | Val | Pro | Val | Asp | Ile | Val | Gln | Ile | Asp | Ile | Lys | Gln | Gly |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Lys | Gln | Thr | Val | Phe | Ser | His | Thr | Arg | Gln | Gly | Ser | Tyr | Arg | Pro | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Thr | Val | Asp | Gln | Tyr | Arg | Asp | Val | Thr | Val | Asn | Ser | Leu | Lys | His |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Pro | Gly | Met | Thr | Ile | His | Leu | Met | Tyr | Gln | Asp | Pro | Met | Ser | Asn | Tyr |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Leu | Arg | Ser | Leu | Met | Thr | Thr | Ala | Pro | Leu | Thr | Ile | Ala | Val | Ala | Phe |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Ile | Val | Leu | Leu | Ile | Phe | Leu | Ala | Val | Arg | Trp | Gln | Arg | Arg | Gln | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |

[illegible]

660

<210> 8065

<211> 390

<212> PRT

<213> Enterobacter cloacae

<400> 8065

Gln Arg Lys Arg Ala Ala Leu Ile Phe Thr Val Ala Asp Asp Phe Cys
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 Ala Leu Ser Leu Leu Arg Val Val Gly Lys Val Ser Gly Phe Cys Phe
 20 25 30
 Pro Pro Gln Leu Ser Gly Leu Ser Met Leu Lys Lys Phe Arg
 35 40 45
 Gly Met Phe Ser Asn Asp Leu Ser Ile Asp Leu Gly Thr Ala Asn Thr
 50 55 60
 Leu Ile Tyr Val Lys Gly Gln Gly Ile Val Leu Asn Glu Pro Ser Val
 65 70 75 80
 Val Ala Ile Arg Gln Asp Arg Ala Gly Ser Pro Lys Ser Val Ala Ala
 85 90 95
 Val Gly His Asp Ala Lys Gln Met Leu Gly Arg Thr Pro Gly Asn Ile
 100 105 110
 Ala Ala Ile Arg Pro Met Lys Asp Gly Val Ile Ala Asp Phe Phe Val
 115 120 125
 Thr Glu Lys Met Leu Gln His Phe Ile Lys Gln Val His Ser Asn Ser
 130 135 140
 Phe Met Arg Pro Ser Pro Arg Val Leu Val Cys Val Pro Val Gly Ala
 145 150 155 160
 Thr Gln Val Glu Arg Arg Ala Ile Arg Glu Ser Ala Gln Gly Ala Gly
 165 170 175
 Ala Arg Glu Val Phe Leu Ile Glu Glu Pro Met Ala Ala Ala Ile Gly
 180 185 190
 Ala Gly Leu Pro Val Ser Glu Ala Thr Gly Ser Met Val Val Asp Ile
 195 200 205
 Gly Gly Gly Thr Thr Glu Val Ala Val Ile Ser Leu Asn Gly Val Val
 210 215 220
 Tyr Ser Ser Ser Val Arg Ile Gly Gly Asp Arg Phe Asp Glu Ala Ile
 225 230 235 240
 Ile Asn Tyr Val Arg Arg Asn Tyr Gly Ser Leu Ile Gly Glu Ala Thr
 245 250 255
 Ala Glu Arg Ile Lys His Glu Ile Gly Ser Ala Tyr Pro Gly Asp Glu
 260 265 270
 Val Arg Glu Ile Glu Val Arg Gly Arg Asn Leu Ala Glu Gly Val Pro
 275 280 285
 Arg Gly Phe Thr Leu Asn Ser Asn Glu Ile Leu Glu Ala Leu Gln Glu
 290 295 300
 Pro Leu Thr Gly Ile Val Ser Ala Val Met Val Ala Leu Glu Gln Cys
 305 310 315 320
 Pro Pro Glu Leu Ala Ser Asp Ile Ser Glu Arg Gly Met Val Leu Thr
 325 330 335
 Gly Gly Gly Ala Leu Leu Arg Asn Leu Asp Arg Leu Leu Met Glu Glu
 340 345 350
 Thr Gly Ile Pro Val Val Val Ala Glu Asp Pro Leu Thr Cys Val Ala
 355 360 365
 Arg Gly Gly Gly Lys Ala Leu Glu Met Ile Asp Met His Gly Gly Asp
 370 375 380
 Leu Phe Ser Glu Glu
 385 390

<210> 8066

<211> 558

<212> PRT

<213> Enterobacter cloacae

<400> 8066

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| Ala | Thr | Ala | Gly | Gly | Ala | Gly | Tyr | Leu | Pro | Gly | Glu | Thr | Ala | Asp | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ser | Ala | Ala | Ala | Gly | Tyr | Arg | Ala | Gly | Arg | Ala | Ala | Gly | Val | Tyr |
| | | 20 | | | | | 25 | | | | | | 30 | | |
| Ala | Ala | Pro | Leu | Pro | Glu | Cys | Ala | Asp | Arg | Gln | Leu | Thr | Lys | Arg | Lys |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Pro | Thr | Pro | Lys | Ala | Ser | Val | Phe | Leu | Trp | Leu | Tyr | Leu | Phe | Leu | Gln |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Val | Gln | Thr | Phe | Arg | Lys | Gly | Gly | His | Met | Thr | Thr | Gln | Ala | Leu | Gln |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Asp | Ser | Ile | Leu | Phe | Gln | Thr | Gly | Tyr | Leu | Val | Asn | Gly | Ile | Trp | Lys |
| | | | 85 | | | | | 90 | | | | | 95 | | |
| Thr | Leu | Asp | Thr | Thr | Phe | Asp | Val | Leu | Asn | Pro | Ala | Thr | Gly | Glu | Val |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Ile | Ala | Lys | Val | Ala | Lys | Ala | Gly | Lys | Ala | Glu | Thr | Glu | Glu | Ala | Ile |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Val | Ala | Ala | Thr | Lys | Ala | Phe | Pro | Ala | Trp | Arg | Ala | Lys | Thr | Ala | Lys |
| | 130 | | | | 135 | | | | | | 140 | | | | |
| Glu | Arg | Ser | Ala | Ile | Leu | Tyr | Arg | Trp | Tyr | Glu | Leu | Ile | Ile | Glu | Asn |
| 145 | | | | 150 | | | | | | 155 | | | | 160 | |
| Lys | Ser | Trp | Leu | Gly | Arg | Leu | Met | Thr | Thr | Glu | Gln | Gly | Lys | Pro | Leu |
| | | | 165 | | | | 170 | | | | | | 175 | | |
| Lys | Glu | Ala | Glu | Gly | Glu | Val | Asp | Tyr | Ala | Ala | Ser | Phe | Ile | Gln | Trp |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Phe | Ala | Glu | Gln | Ala | Lys | Arg | Ala | Asn | Gly | Glu | Ile | Ile | Pro | Pro | Val |
| | 195 | | | | | 200 | | | | | | 205 | | | |
| Lys | Pro | Gly | Ser | Arg | Ile | Leu | Ala | Thr | Arg | Glu | Pro | Val | Gly | Val | Val |
| | 210 | | | | 215 | | | | | | 220 | | | | |
| Ala | Ala | Ile | Thr | Pro | Trp | Asn | Phe | Pro | Met | Ala | Met | Leu | Thr | Arg | Lys |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Leu | Gly | Pro | Ala | Leu | Ala | Ala | Gly | Cys | Thr | Gly | Val | Ile | Lys | Pro | Ala |
| | | | 245 | | | | | 250 | | | | | 255 | | |
| Asn | Asn | Thr | Pro | Leu | Ser | Ala | Phe | Ala | Leu | Leu | Thr | Leu | Ala | Lys | Gln |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Ala | Gly | Val | Pro | Asp | Gly | Val | Leu | Asn | Ala | Val | Ala | Gly | Ser | Thr | Ser |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Glu | Ile | Ser | Asp | Ala | Ile | Met | Ala | Ser | His | Asp | Val | Arg | Lys | Ile | Ser |
| | 290 | | | | 295 | | | | | 300 | | | | | |
| Phe | Thr | Gly | Ser | Thr | Ala | Val | Gly | Lys | Thr | Leu | Val | Arg | Asn | Ser | Ala |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Glu | Thr | Met | Lys | Lys | Val | Ser | Met | Glu | Leu | Gly | Gly | Asn | Ala | Pro | Tyr |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Ile | Val | Phe | Glu | Asp | Ala | Asp | Ile | Asp | Ala | Ala | Val | Lys | Gly | Ala | Ile |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Ala | Asn | Lys | Phe | Arg | Asn | Ala | Gly | Gln | Val | Cys | Val | Ser | Val | Asn | Arg |
| | 355 | | | | | 360 | | | | | | 365 | | | |
| Phe | Tyr | Ile | Gln | Glu | Thr | Val | Tyr | Asp | Lys | Phe | Val | Asn | Gln | Leu | Ala |
| | 370 | | | | 375 | | | | | | 380 | | | | |
| Asp | Ala | Val | Lys | Ala | Leu | Lys | Val | Gly | Asn | Gly | Leu | Asp | Glu | Gly | Val |
| 385 | | | | 390 | | | | | 395 | | | | | 400 | |
| Val | Val | Gly | Pro | Leu | Ile | Glu | Pro | Ser | Ala | Val | Glu | Lys | Val | Arg | Glu |
| | | | 405 | | | | | 410 | | | | | 415 | | |
| His | Val | Glu | Asp | Ala | Val | Ala | Lys | Gly | Ala | Thr | Val | Leu | Ala | Gly | Gly |
| | | 420 | | | | | 425 | | | | | 430 | | | |
| Lys | Pro | His | Glu | Leu | Gly | Gly | Asn | Phe | Trp | Met | Pro | Thr | Val | Leu | Gly |
| | 435 | | | | | 440 | | | | | 445 | | | | |
| Asp | Cys | His | Glu | Gly | Met | Lys | Leu | Ala | Glu | Glu | Glu | Thr | Phe | Gly | Pro |

| | | |
|-------------------------|---------------------|---------------------|
| 450 | 455 | 460 |
| Val Ala Ala Cys Phe Arg | Phe Thr Ser Glu Asp | Glu Val Val Met Arg |
| 465 | 470 | 475 |
| Ala Asn Asn Thr Pro Tyr | Gly Leu Ala Ala Tyr | Phe Tyr Thr Gln Asn |
| | 485 | 490 |
| Leu Ser Arg Val Phe Arg | Val Ser Gln Ala Ile | Glu Ser Gly Met Ile |
| | 500 | 505 |
| Gly Ile Asn Glu Cys Ala | Val Ser Thr Glu Leu | Gly Pro Phe Gly Gly |
| | 515 | 520 |
| Val Lys Glu Ser Gly Leu | Gly Arg Glu Gly Ser | Val Leu Gly Leu Glu |
| | 530 | 535 |
| Glu Phe Leu Glu Val Lys | Thr Leu His Ile Gly | Gly Leu |
| 545 | 550 | 555 |

<210> 8067

<211> 105

<212> PRT

<213> Enterobacter cloacae

<400> 8067

| | |
|-----------------------------|-------------------------------------|
| Thr Gly Arg His Leu Pro Pro | Ala Cys Thr Gly Trp Leu Ala Met Lys |
| 1 | 5 10 15 |
| Ile Tyr Thr Phe Asp Phe Asp | Glu Ile Glu Ser Gln Glu Asp Phe Tyr |
| | 20 25 30 |
| Arg Glu Phe Ile Arg Ala Phe | Asp Leu Glu Arg Gly Ser Val Ser Asn |
| | 35 40 45 |
| Leu Asp Met Leu Trp Asp Val | Val Thr Gly Asp Arg Leu Pro Leu Pro |
| | 50 55 60 |
| Leu Glu Ile Glu Phe Thr His | Leu Pro Glu Lys Leu Arg Arg Arg Phe |
| | 65 70 75 80 |
| Gly Ala Leu Ile Leu Leu Phe | Asp Glu Ala Glu Glu Leu Glu Gly |
| | 85 90 95 |
| Gln Leu Arg Phe Asn Val Arg | Gln |
| | 100 105 |

<210> 8068

<211> 375

<212> PRT

<213> Enterobacter cloacae

<400> 8068

| | |
|-----------------------------|-------------------------------------|
| Cys Pro Asp Asn Ser Cys Tyr | Ala Ala Asn Arg Ser Phe Phe Asn Asp |
| 1 | 5 10 15 |
| Thr Arg Ile Met Leu Leu Lys | Leu Phe Arg Ser Ile Val Ile Gly Leu |
| | 20 25 30 |
| Ile Val Ala Gly Leu Leu Leu | Val Ala Met Pro Ser Leu Arg Gln Phe |
| | 35 40 45 |
| Asn Lys Leu Ser Ala Pro Gln | Phe Asp Ser Thr Asp Glu Thr Pro Ala |
| | 50 55 60 |
| Thr Tyr Asn Gln Ala Val Arg | Arg Ala Ala Pro Ala Val Val Asn Val |
| | 65 70 75 80 |
| Tyr Asn Arg Gly Leu Asn Ser | Ser Ala His Asn Gln Leu Glu Ile Arg |
| | 85 90 95 |
| Thr Leu Gly Ser Gly Val Ile | Met Asp Asp Arg Gly Tyr Ile Ile Thr |
| | 100 105 110 |
| Asn Lys His Val Ile Asn Asp | Ala Asp Gln Ile Ile Val Ala Leu Gln |
| | 115 120 125 |
| Asp Gly Arg Val Phe Glu Ala | Leu Leu Val Gly Ser Asp Ser Leu Thr |
| | 130 135 140 |
| Asp Leu Ala Val Leu Lys Ile | Asn Ala Thr Gly Gly Leu Pro Thr Ile |
| 145 | 150 155 160 |

Pro Ile Asn Arg Lys Arg Thr Pro His Ile Gly Asp Val Val Leu Ala
 165 170 175
 Ile Gly Asn Pro Tyr Asn Leu Gly Gln Thr Ile Thr Gln Gly Ile Ile
 180 185 190
 Ser Ala Thr Gly Arg Ile Gly Leu Asn Pro Ser Gly Arg Gln Asn Phe
 195 200 205
 Leu Gln Thr Asp Ala Ser Ile Asn His Gly Asn Ser Gly Gly Ala Leu
 210 215 220
 Val Asn Ser Leu Gly Glu Leu Met Gly Ile Asn Thr Leu Ser Phe Asp
 225 230 235 240
 Lys Ser Asn Asp Gly Glu Thr Pro Glu Gly Ile Gly Phe Ala Ile Pro
 245 250 255
 Phe Gln Leu Ala Thr Lys Ile Met Asp Lys Leu Ile Arg Asp Gly Arg
 260 265 270
 Val Ile Arg Gly Tyr Ile Gly Ile Gly Gly Arg Glu Ile Ala Pro Met
 275 280 285
 His Thr Gln Gly Gly Gly Ile Asp Gln Ile Gln Gly Ile Val Val Asn
 290 295 300
 Glu Val Ala Pro Gly Gly Pro Ala Ala Asn Ala Gly Ile Gln Val Asn
 305 310 315 320
 Asp Val Ile Leu Ser Val Asn Gly Thr Pro Ala Val Ser Ala Leu Glu
 325 330 335
 Thr Met Asp Gln Val Ala Glu Ile Arg Pro Gly Ser Ile Ile Pro Val
 340 345 350
 Glu Val Met Arg Asn Asp Lys Lys Leu Thr Ile Gln Val Thr Ile Gln
 355 360 365
 Glu Tyr Pro Ala Thr Asn
 370 375

<210> 8069

<211> 354

<212> PRT

<213> Enterobacter cloacae

<400> 8069

His Ile Arg Ala Asn Pro Pro Pro Pro Ser Cys Leu Glu Lys Arg Leu
 1 5 10 15
 Thr Glu Asp Ala Met Lys Thr Arg Lys Leu Thr Glu Ala Asp Val Thr
 20 25 30
 Ser Glu Ser Val Phe Met Leu Gln Arg Arg Gln Ile Leu Lys Met Leu
 35 40 45
 Gly Ile Ser Ala Thr Ala Leu Thr Leu Thr Pro Ala Ala His Ala Asp
 50 55 60
 Leu Leu Asp Trp Phe Lys Gly Asn Asp Arg Pro Lys Ala Pro Ser Gly
 65 70 75 80
 Ala Pro Leu Asp Phe Thr Lys Pro Ala Gln Trp Gln Asn Lys Leu Thr
 85 90 95
 Leu Thr Pro Glu Asp Lys Val Thr Gly Tyr Asn Asn Phe Tyr Glu Phe
 100 105 110
 Gly Leu Asp Lys Ala Asp Pro Ala Ala Asn Ala Gly Ser Met Lys Thr
 115 120 125
 Asp Pro Trp Thr Leu Lys Ile Asp Gly Glu Val Ala Lys Pro Val Thr
 130 135 140
 Leu Asp His His Asp Leu Thr Thr Arg Phe Pro Leu Glu Glu Arg Ile
 145 150 155 160
 Tyr Arg Met Arg Cys Val Glu Ala Trp Ser Met Val Val Pro Trp Val
 165 170 175
 Gly Phe Pro Leu His Lys Leu Leu Ala Leu Val Glu Pro Thr Ser Asn
 180 185 190
 Ala Lys Tyr Val Ser Phe Gln Thr Arg Tyr Ala Pro Asp Glu Met Pro
 195 200 205

Gly Gln Lys Asp Arg Phe Ile Gly Gly Gly Leu Glu Tyr Pro Tyr Val
 210 215 220
 Glu Gly Leu Arg Leu Asp Glu Ala Met His Pro Leu Thr Leu Leu Thr
 225 230 235 240
 Val Gly Val Tyr Gly Lys Ala Leu Pro Pro Gln Asn Gly Ala Pro Ile
 245 250 255
 Arg Leu Thr Val Pro Trp Lys Tyr Gly Phe Lys Gly Ile Lys Ser Ile
 260 265 270
 Val Ser Ile Lys Leu Thr Arg Glu Arg Pro Pro Thr Thr Trp Asn Leu
 275 280 285
 Ala Ala Pro Asp Glu Tyr Gly Phe Phe Ala Asn Val Asn Pro His Val
 290 295 300
 Asp His Pro Arg Trp Ser Gln Ala Thr Glu Arg Phe Ile Gly Ser Gly
 305 310 315 320
 Gly Ala Leu Asp Val Lys Arg Gln Pro Thr Leu Leu Phe Asn Gly Tyr
 325 330 335
 Ala Asp Glu Val Ala Ser Leu Tyr Arg Gly Leu Asn Leu Arg Glu Asn
 340 345 350
 Phe

<210> 8070

<211> 81

<212> PRT

<213> Enterobacter cloacae

<400> 8070

Val Arg Leu Thr Ala Lys Gln Ile Thr Trp Leu Lys Val Leu Leu His
 1 5 10 15
 Leu Ala Gly Leu Leu Pro Phe Ile Trp Leu Phe Trp Ala Ala Ser Gln
 20 25 30
 Gly Gln Phe Ser Ala Asp Pro Ala Lys Asp Ile Gln His Phe Thr Gly
 35 40 45
 Arg Met Ala Leu Lys Phe Leu Leu Ala Thr Leu Leu Val Ser Pro Leu
 50 55 60
 Ala Arg Tyr Ala Lys Gln Pro Val Phe Thr Arg Asp Gly Asp His Val
 65 70 75 80
 Lys

<210> 8071

<211> 475

<212> PRT

<213> Enterobacter cloacae

<400> 8071

His Gln Asp Val Phe Gly Ala Val Leu Phe His Ser Arg Ile Arg Glu
 1 5 10 15
 Ser Ala Ser Met Lys Lys Lys Asn Gln Leu Leu Ser Ala Leu Ala Leu
 20 25 30
 Ser Val Gly Leu Ser Leu Ser Ala Ser Phe Pro Ala Ser Ala Ala Leu
 35 40 45
 Pro Ser Gln Val Pro Gly Gln Glu Ala Ile Pro Ser Leu Ala Pro Met
 50 55 60
 Leu Glu Lys Val Leu Pro Ala Val Val Ser Val Gln Val Glu Gly Thr
 65 70 75 80
 Ala Arg Gln Ser Gln Arg Ile Pro Glu Glu Leu Lys Lys Tyr Phe Gly
 85 90 95
 Glu Asp Ala Pro Asp Gln Gln Ala Gln Pro Phe Glu Gly Leu Gly Ser
 100 105 110
 Gly Val Ile Ile Asp Ala Ala Lys Gly Tyr Ile Leu Thr Asn Asn His


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<210> 8072
<211> 73
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Met | Arg | Ser | Ser | Ser | Lys | Gln | Glu | Glu | Leu | Val | Lys | Ala | Phe | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Leu | Leu | Lys | Glu | Glu | Lys | Phe | Ser | Ser | Gln | Gly | Arg | Asn | Cys | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Val | Ala | Gly | Thr | Arg | Leu | Arg | Gln | His | Gln | Pro | Val | Glu | Gly | Leu |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Ser | His | Val | Asn | Gln | Val | Trp | Ser | Gly | Ala | Tyr | Ala | Gln | Arg | Gln | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Asn | Gly | Leu | Leu | Pro | Ala | Cys | | | | | | | | |

65

70

<210> 8073

<211> 328

<212> PRT

<213> Enterobacter cloacae

<400> 8073

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Pro | Cys | Met | Gln | Ala | Leu | Ile | Leu | Glu | Gln | Gln | Asp | Gly | Lys | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ala | Ser | Val | Gln | Ala | Ile | Glu | Glu | Asn | Arg | Leu | Pro | Glu | Gly | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Thr | Val | Asp | Ile | Asp | Trp | Ser | Ser | Leu | Asn | Tyr | Lys | Asp | Ala | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ala | Ile | Thr | Gly | Lys | Gly | Lys | Ile | Ile | Arg | Asn | Phe | Pro | Met | Val | Pro |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ile | Asp | Phe | Ala | Gly | Arg | Val | His | Thr | Ser | Glu | Asp | Pro | Arg | Phe |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| His | Ala | Gly | Gln | Gln | Val | Leu | Leu | Thr | Gly | Trp | Gly | Val | Gly | Glu | Asn |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| His | Trp | Gly | Gly | Leu | Ala | Ala | Gln | Ala | Arg | Val | Lys | Gly | Asp | Trp | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Pro | Met | Pro | Lys | Gly | Leu | Asp | Gly | Arg | Lys | Ala | Met | Ile | Ile | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Thr | Ala | Gly | Phe | Thr | Ala | Met | Leu | Cys | Val | Met | Ala | Leu | Glu | Glu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Ile | Arg | Pro | Asp | Ser | Gly | Glu | Ile | Val | Val | Thr | Gly | Ala | Ser | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Val | Gly | Ser | Thr | Ala | Val | Thr | Leu | Leu | His | Lys | Leu | Gly | Tyr | Gln |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Val | Ala | Ala | Val | Ser | Gly | Arg | Glu | Ser | Thr | His | Asp | Tyr | Leu | Arg | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Gly | Ala | Ser | Arg | Ile | Leu | Ser | Arg | Asp | Glu | Phe | Ala | Glu | Thr | Arg |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Pro | Leu | Glu | Lys | Gln | Val | Trp | Ala | Gly | Ala | Val | Asp | Thr | Val | Gly | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Val | Leu | Ala | Lys | Val | Leu | Ala | Gln | Met | Asn | Tyr | Gly | Gly | Cys | Val |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Ala | Cys | Gly | Leu | Ala | Gly | Gly | Phe | Ala | Leu | Pro | Thr | Thr | Val | Met |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Pro | Phe | Ile | Leu | Arg | Asn | Val | Arg | Leu | Gln | Gly | Val | Asp | Ser | Val | Met |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Ser | Pro | Ala | Glu | Arg | Arg | Ala | Glu | Ala | Trp | Glu | Arg | Leu | Val | Gln | Asp |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Leu | Pro | Ala | Ser | Phe | Tyr | Glu | Gln | Ser | Ala | Thr | Glu | Ile | Thr | Leu | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Gln | Ala | Pro | Glu | Phe | Ala | Asn | Lys | Ile | Met | Asp | Asn | Gln | Phe | His | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Arg | Ala | Leu | Val | Lys | Ile | Ala | | | | | | | | | |
| | | | | 325 | | | | | | | | | | | |

<210> 8074

<211> 158

<212> PRT

<213> Enterobacter cloacae

<400> 8074

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Thr | Ser | Pro | Ser | Ser | Pro | Arg | Arg | Val | Lys | Gln | Pro | Thr | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Thr | Thr | Arg | Gln | Arg | Glu | Lys | Phe | Met | Thr | Trp | Glu | Tyr | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

Ile Gly Leu Val Val Gly Ile Ile Ile Gly Ala Val Ala Met Arg Phe
 35 40 45
 Gly Asn Arg Lys Leu Arg Gln Gln Ser Leu Gln Tyr Glu Leu Glu
 50 55 60
 Lys Asn Lys Ala Glu Leu Glu Glu Tyr Arg Glu Glu Leu Val Ser His
 65 70 75 80
 Phe Ala Arg Ser Ala Glu Leu Leu Asp Asn Met Ala Thr Asp Tyr Arg
 85 90 95
 Gln Leu Tyr Gln His Met Ala Lys Ser Ser Ser Ser Leu Leu Pro Glu
 100 105 110
 Met Thr Ala Glu Thr Asn Pro Phe Arg Asn Arg Leu Ala Asp Ser Glu
 115 120 125
 Ala Gly Asn Asp Gln Ala Pro Val Gln Met Pro Arg Asp Tyr Ser Asp
 130 135 140
 Gly Ala Ser Gly Leu Leu Arg Gly Gly Val Lys Arg Asp
 145 150 155

<210> 8075

<211> 146

<212> PRT

<213> Enterobacter cloacae

<400> 8075

Arg Arg Leu Lys Arg Tyr Ser Lys Lys Arg Asn Ser Val Leu Arg Gly
 1 5 10 15
 Glu Ile Val Gln Ala Leu Gln Glu Gln Gly Phe Asp Asn Ile Asn Gln
 20 25 30
 Ser Lys Val Ser Arg Met Leu Thr Lys Phe Gly Ala Val Arg Thr Arg
 35 40 45
 Asn Ala Lys Met Glu Met Val Tyr Cys Leu Pro Ala Glu Leu Gly Val
 50 55 60
 Pro Thr Thr Ser Ser Pro Leu Lys Asn Leu Val Leu Asp Ile Asp Tyr
 65 70 75 80
 Asn Asp Ala Val Val Val Ile His Thr Ser Pro Gly Ala Ala Gln Leu
 85 90 95
 Ile Ala Arg Leu Leu Asp Ser Leu Gly Lys Ala Glu Gly Ile Leu Gly
 100 105 110
 Thr Ile Ala Gly Asp Asp Thr Ile Phe Thr Thr Pro Ala Asn Gly Phe
 115 120 125
 Ser Val Lys Asp Leu Tyr Glu Ala Ile Leu Val Leu Phe Glu Gln Glu
 130 135 140
 Leu
 145

<210> 8076

<211> 90

<212> PRT

<213> Enterobacter cloacae

<400> 8076

Ile Ile Met Lys Ile Lys Thr Thr Val Ala Thr Leu Ser Val Leu Ser
 1 5 10 15
 Val Leu Ser Phe Gly Ala Phe Ala Ala Asp Thr Ile Asn Ala Glu Gln
 20 25 30
 Ala Gln Ser Arg Gln Ala Ile Gly Thr Val Ser Val Gly Ala Ile Gly
 35 40 45
 Thr Ser Pro Met Asp Met His Glu Met Leu Asn Lys Lys Ala Glu Glu
 50 55 60
 Gln Gly Ala Ser Ser Tyr Arg Ile Ile Glu Ala Arg Ser Gly Asp His
 65 70 75 80
 Trp His Ala Thr Ala Glu Leu Tyr Lys

85

90

<210> 8077

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 8077

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Arg | Phe | Thr | Leu | Thr | Gln | Thr | Cys | Pro | Ala | Leu | Arg | Asn | Leu | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Ile | Ala | Pro | Leu | Thr | Ala | Ala | Ser | Ile | Ser | Ala | Ser | Ser | Lys | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Tyr | Gly | Ala | Leu | Pro | Pro | Ser | Ser | Ile | Asp | Thr | Phe | Phe | Met | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Ala | Glu | Leu | Arg | Thr | Ser | Val | Phe | Pro | Thr | Ala | Val | Glu | Pro | Val |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Asn | Glu | Ile | Leu | Arg | Thr | Ser | Trp | Leu | Ala | Ile | Met | Ala | Ser | Leu | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Glu | Val | Leu | Pro | Ala | Thr | Ala | Phe | Ser | Thr | Pro | Ser | Gly | Thr | Pro |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ala | Cys | Phe | Ala | Ser | Val | Ser | Ser | Ala | Lys | Ala | Leu | Ser | Gly | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ala | Gly | Leu | Ile | Thr | Pro | Val | His | Pro | Ala | Ala | Ser | Ala | Gly | Pro |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ser | Leu | Arg | Val | Ser | Ile | Ala | Ile | Gly | Lys | Phe | His | Gly | Val | Ile | Ala |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Ala | Thr | Thr | Pro | Thr | Gly | Ser | Arg | Val | Ala | Arg | Ile | Arg | Glu | Pro | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Thr | Gly | Gly | Met | Ile | Ser | Pro | Leu | Ala | Arg | Leu | Ala | Cys | Ser | Ala |
| | | | | 165 | | | | | 170 | | | | | 175 | |

Asn His

<210> 8078

<211> 310

<212> PRT

<213> Enterobacter cloacae

<400> 8078

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Met | Glu | Arg | Leu | Lys | Arg | Met | Ser | Val | Phe | Ala | Lys | Val | Val | Glu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Gly | Ser | Phe | Thr | Ala | Ala | Ala | Arg | Gln | Leu | Gln | Met | Ser | Val | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ile | Ser | Gln | Thr | Val | Ser | Lys | Leu | Glu | Asp | Glu | Leu | Gln | Val | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Leu | Leu | Asn | Arg | Ser | Thr | Arg | Ser | Ile | Gly | Leu | Thr | Glu | Ala | Gly | Lys |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ile | Tyr | Tyr | Gln | Gly | Cys | Arg | Arg | Met | Leu | His | Glu | Val | Gln | Asp | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| His | Glu | Gln | Leu | Tyr | Ala | Phe | Asn | Asn | Thr | Pro | Ile | Gly | Thr | Leu | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Gly | Cys | Ser | Ser | Thr | Met | Ala | Gln | Asn | Val | Leu | Ala | Ala | Met | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ala | Glu | Met | Leu | Lys | Glu | Tyr | Pro | Gly | Leu | Thr | Val | Asn | Leu | Val | Thr |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Ile | Pro | Ala | Pro | Asp | Leu | Ile | Ala | Asp | Gly | Leu | Asp | Val | Val | Ile |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Arg | Val | Gly | Ala | Leu | Gln | Asp | Ser | Ser | Leu | Phe | Ser | Arg | Arg | Leu | Gly |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Met | Pro | Met | Val | Val | Cys | Ala | Ser | Lys | Ser | Tyr | Leu | Ala | Gln | Tyr |
| | | | | 165 | | | | | 170 | | | | | 175 | |

Gly Val Pro Glu Lys Pro Ala Asp Leu Ser Asn His Ser Trp Leu Glu
 180 185 190
 Tyr Ser Val Arg Pro Asp Asn Glu Phe Glu Leu Ile Ala Pro Glu Gly
 195 200 205
 Leu Ser Thr Lys Leu Leu Pro Glu Gly Arg Phe Val Thr Asn Asp Pro
 210 215 220
 Met Thr Ile Ser Arg Trp Leu Val Ala Gly Ala Gly Ile Ala Tyr Val
 225 230 235 240
 Pro Leu Met Trp Val Ile Asn Glu Ile Asn Ser Gly Val Leu Glu Ile
 245 250 255
 Leu Phe Pro Arg Tyr Gln Ser Asp Pro Arg Pro Val Tyr Ala Leu Tyr
 260 265 270
 Thr Glu Lys Asp Lys Leu Pro Leu Lys Val Gln Val Cys Ile Asn Tyr
 275 280 285
 Leu Thr Asp Tyr Phe Val Glu Val Ala Glu Leu Phe Gln Gly Met Arg
 290 295 300
 Gly Arg Arg Lys Glu
 305 310

<210> 8079

<211> 577

<212> PRT

<213> Enterobacter cloacae

<400> 8079

Ile Asp Asp Asn Tyr Cys Ser Gly Phe Phe Met Arg Gln Leu Asn Arg
 1 5 10 15
 Leu Asn Gln Tyr Gln Arg Leu Trp His Pro Ser Ala Gly Ala Pro Gln
 20 25 30
 Gln Val Thr Ile Ser Glu Leu Ala Ser Arg Cys Phe Cys Ser Glu Arg
 35 40 45
 His Val Arg Thr Leu Leu Arg Gln Ala Gln Glu Ala Gly Trp Leu Ser
 50 55 60
 Trp His Ala Arg Ser Gly Arg Gly Lys Arg Gly Glu Leu Arg Phe His
 65 70 75 80
 Val Thr Pro Asp Ser Leu Arg Asn Thr Met Met Glu Glu Ala Leu Lys
 85 90 95
 Ser Gly Gln Gln His Asn Ala Leu Glu Leu Ala Gln Leu Ala Pro Glu
 100 105 110
 Asp Leu Arg Ser Leu Leu His Pro Phe Met Gly Gly Gln Trp Gln Asn
 115 120 125
 Asp Thr Pro Thr Leu Arg Ile Pro Tyr Tyr Arg Ser Leu Glu Pro Leu
 130 135 140
 Gln Pro Gly Phe Leu Pro Gly Arg Ala Glu Gln His Leu Ala Gly Gln
 145 150 155 160
 Val Phe Ser Gly Leu Thr Arg Phe Asn Gly Asn Ser Ser Glu Pro Thr
 165 170 175
 Gly Asp Leu Ala His His Trp Glu Val Ser Ala Asp Gly Leu Arg Trp
 180 185 190
 His Phe Tyr Ile Arg Ser Thr Leu His Trp His Asn Gly Asp Lys Ile
 195 200 205
 Glu Thr Ala Gln Leu Arg Gln Ser Leu Thr Ala Leu Leu Ser Gln Pro
 210 215 220
 Gly Met Gly Thr Leu Phe Arg Ser Val Leu Arg Ile Glu Thr Thr His
 225 230 235 240
 Pro Gln Cys Leu Thr Phe Ile Leu His Gln Pro Asp Tyr Trp Leu Ala
 245 250 255
 His Arg Leu Ala Thr Tyr Cys Ser Arg Leu Ala His Pro Asp Tyr Pro
 260 265 270
 Val Val Gly Ser Gly Pro Phe Arg Leu Ser Val Phe Glu Pro Glu Leu
 275 280 285

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Arg | Leu | Glu | Ser | His | Glu | Gln | Tyr | His | Leu | Gly | His | Pro | Leu | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Lys | Ala | Ile | Glu | Tyr | Trp | Ile | Thr | Pro | Gln | Leu | Phe | Asp | Tyr | Ser | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Gly | Thr | Ser | Cys | Arg | His | Pro | Val | Gln | Ile | Ala | Ile | Gly | Glu | Ala | Asp |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Glu | Leu | Ala | Ser | Leu | Arg | Leu | Val | Ser | Asn | Ser | Thr | Ser | Leu | Gly | Phe |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Cys | Tyr | Leu | Thr | Leu | Lys | Gln | Ser | Pro | Arg | Leu | Ser | Glu | Leu | Gln | Ala |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Lys | Arg | Leu | Ile | Asn | Ile | Ile | His | Leu | Ser | Thr | Leu | Leu | His | Thr | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Pro | Leu | Asn | Glu | Gly | Leu | Ile | Thr | Pro | Thr | Glu | Glu | Leu | Leu | Pro | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Trp | Ala | Ile | Pro | Gln | Trp | Pro | Asp | Leu | Thr | Asp | Val | Ala | Leu | Pro | Glu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Ala | Leu | Thr | Leu | Val | Tyr | His | Leu | Pro | Val | Glu | Leu | His | Thr | Met | Ala |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ser | Gln | Leu | Lys | Ala | Tyr | Leu | Thr | Arg | Gln | Gly | Cys | Glu | Leu | Thr | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Ile | Phe | His | Asp | Ala | Lys | Thr | Trp | Asp | Gly | Cys | Gln | Gln | Leu | Ala | Asp |
| | 450 | | | | | 455 | | | | 460 | | | | | |
| Ala | Asp | Ile | Met | Met | Gly | Asp | Arg | Leu | Ile | Gly | Glu | Ala | Pro | Ala | Tyr |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Thr | Leu | Glu | Gln | Trp | Leu | Arg | Cys | Asp | Ala | Leu | Trp | Pro | His | Leu | Leu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Ser | Ala | Pro | Ala | Phe | Ala | His | Leu | Gln | Ala | Thr | Leu | Asp | Ala | Val | Gln |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ser | Gln | Ala | Asp | Glu | Arg | Asp | Arg | His | Ala | Gly | Leu | Gln | Ala | Ile | Phe |
| | 515 | | | | | 520 | | | | | | 525 | | | |
| Ser | Arg | Leu | Met | Glu | Thr | Ala | Val | Leu | Thr | Pro | Leu | Phe | Asn | Tyr | Gln |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Tyr | Gln | Ile | Ser | Ala | Pro | Pro | Gly | Val | Asn | Gly | Ile | Arg | Leu | Asn | Thr |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Arg | Gly | Trp | Phe | Asp | Phe | Thr | Glu | Ala | Trp | Leu | Pro | Pro | Pro | Asn | Ala |
| | | | | 565 | | | | | 570 | | | | | 575 | |

<210> 8080

<211> 233

<212> PRT

<213> Enterobacter cloacae

<400> 8080

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Met | Lys | Arg | Ala | Val | Val | Val | Phe | Ser | Gly | Gly | Gln | Asp | Ser | Thr |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Thr | Cys | Leu | Ile | Gln | Ala | Leu | His | Gln | Tyr | Asp | Glu | Val | His | Cys | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Phe | Asp | Tyr | Gly | Gln | Arg | His | Arg | Ala | Glu | Ile | Asp | Val | Ala | Arg |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Leu | Ala | Leu | Lys | Leu | Gly | Ala | Arg | Ala | His | Lys | Val | Leu | Asp | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Leu | Leu | Asn | Glu | Leu | Ala | Val | Ser | Ser | Leu | Thr | Arg | Asp | Ser | Ile |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Pro | Val | Pro | Asp | Tyr | Glu | Pro | Asp | Ala | Ser | Gly | Ile | Pro | Asn | Thr | Phe |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Val | Pro | Gly | Arg | Asn | Ile | Leu | Phe | Leu | Thr | Leu | Thr | Ala | Ile | Tyr | Ala |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Tyr | Gln | Val | Lys | Ala | Glu | Ala | Val | Ile | Thr | Gly | Val | Cys | Glu | Thr | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |

Phe Ser Gly Tyr Pro Asp Cys Arg Asp Glu Phe Val Lys Ala Leu Asn
 130 135 140
 His Ala Val Asp Leu Gly Met Ala Lys Glu Thr Arg Phe Glu Thr Pro
 145 150 155 160
 Leu Met Trp Leu Asp Lys Ala Glu Thr Trp Ala Leu Ala Asp Tyr Trp
 165 170 175
 Gly Lys Leu Asp Val Val Arg Asn Glu Thr Leu Thr Cys Tyr Asn Gly
 180 185 190
 Ile Lys Gly Asp Gly Cys Gly Gln Cys Ala Ala Cys Asn Leu Arg Ala
 195 200 205
 Asn Gly Leu Asn His Tyr Phe Ala Asp Lys Ala Gly Val Met Ala Ala
 210 215 220
 Met Gln Lys Lys Thr Gly Leu Lys
 225 230

<210> 8081

<211> 369

<212> PRT

<213> Enterobacter cloacae

<400> 8081

Gln Gln Phe Phe Leu Cys Phe Ser Leu Cys Trp Ala Gln Asn Asp Lys
 1 5 10 15
 Arg Ile Thr Thr Met Asn Ser Thr Trp Val Lys His Ala Ile Ser Glu
 20 25 30
 Ile Asn Ala Asp Tyr Gln Arg Ser Ala Asp Thr His Leu Ile Arg Leu
 35 40 45
 Pro Leu Pro Gly Phe Pro Gly Ile Gln Leu Tyr Leu Lys Asp Glu Ser
 50 55 60
 Thr His Pro Thr Gly Ser Leu Lys His Arg Leu Ala Arg Ser Leu Phe
 65 70 75 80
 Leu Tyr Gly Leu Cys Asn Gly Trp Ile Lys Glu Gly Thr Thr Ile Ile
 85 90 95
 Glu Ser Ser Ser Gly Ser Thr Ala Val Ser Glu Ala Tyr Phe Ala Arg
 100 105 110
 Leu Leu Gly Leu Pro Phe Ile Ala Val Met Pro Ser Cys Thr Ala Lys
 115 120 125
 Arg Lys Val Glu Gln Ile Glu Phe Tyr Gly Gly Arg Cys His Phe Val
 130 135 140
 Asp Ser Ala Cys Glu Ile Tyr Ala Ala Ser Glu Met Leu Ala Arg Glu
 145 150 155 160
 Leu Asn Gly His Tyr Met Asp Gln Phe Thr Phe Ala Glu Arg Ala Thr
 165 170 175
 Asp Trp Arg Gly Asn Asn Asn Ile Ala Asp Ser Ile Phe Arg Gln Met
 180 185 190
 Thr His Glu Pro His Pro Leu Pro Ser Tyr Ile Val Met Ser Ala Gly
 195 200 205
 Thr Gly Gly Thr Ser Ala Thr Ile Gly Arg Tyr Ile Arg Cys Gln Gly
 210 215 220
 Tyr Asp Thr Gln Leu Met Val Val Asp Pro Gln Asn Ser Val Phe Leu
 225 230 235 240
 Asp Tyr Trp Gln Ser Arg Asp Ala Ser Leu Arg Ser Pro Val Gly Ser
 245 250 255
 Lys Ile Glu Gly Ile Gly Arg Pro Arg Val Glu Pro Ser Phe Ile Pro
 260 265 270
 Asp Val Val Asp Glu Met Leu Arg Val Pro Asp Ala Ala Ser Val Ala
 275 280 285
 Thr Ala His Trp Leu Glu Thr Gln Leu Gly Arg Lys Val Gly Ala Ser
 290 295 300
 Thr Gly Thr Asn Met Trp Gly Ala Leu Gln Leu Ala Ala Arg Met Arg
 305 310 315 320

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Gly | Arg | Thr | Gly | Ser | Val | Val | Thr | Leu | Leu | Cys | Asp | Ser | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Glu | Arg | Tyr | Leu | Asp | Thr | Tyr | Tyr | Asn | Ala | Glu | Trp | Val | Gln | Ala | Asn |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ile | Gly | Asp | Val | Glu | Pro | Trp | Lys | Ala | Gln | Ile | Ser | Gln | Leu | Val | Lys |
| | | 355 | | | | | 360 | | | | | 365 | | | |

<210> 8082

<211> 522

<212> PRT

<213> Enterobacter cloacae

<400> 8082

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Ser | Met | Arg | Thr | Arg | His | Leu | Val | Ser | Leu | Val | Thr | Gly | Val | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ile | Phe | Ser | Val | Leu | Val | Pro | Val | Cys | Leu | Ser | Ile | Trp | Leu | Ala | His |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Arg | Gln | Ala | Glu | Glu | Lys | Phe | Val | Asp | Ala | Leu | Asp | Ser | Tyr | Ala | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Val | Leu | Ile | Arg | Thr | Asp | Arg | Val | Val | Ala | Gln | Ala | Lys | Gln | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Thr | His | Leu | Gln | Thr | Phe | His | Ala | Pro | Pro | Cys | Thr | Pro | Pro | His |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Arg | Glu | Met | Arg | Arg | Val | Ala | Phe | Ser | Trp | Arg | Tyr | Ile | Gln | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Val | Met | Tyr | Ile | Asp | Asn | Leu | Lys | Pro | Leu | Cys | Ser | Ser | Leu | Glu | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ser | Ser | Asp | Thr | Ala | Ile | Leu | Pro | Pro | Pro | Met | Arg | Ile | Thr | Glu | Asn |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gly | Tyr | Ser | Ala | Trp | Leu | Thr | Ser | Gln | Asn | Asp | Leu | Gly | Ile | Gln | Arg |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Tyr | Met | Ala | Val | Leu | Gly | Lys | Gly | His | Tyr | Leu | Val | Met | Val | Asp | Pro |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ala | Ser | Leu | Val | Asp | Val | Val | Pro | Phe | Gly | Glu | Ile | Ser | Met | Asp | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Ala | Leu | Val | Gly | Ser | Ser | Thr | His | His | Ile | Phe | Ala | Arg | Ser | Asn | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Asp | Pro | Tyr | Ile | Leu | Ser | Val | Lys | Glu | Gln | Gln | Asp | Val | Thr | |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Arg | Val | Gln | Tyr | Asn | Gly | Ser | Met | Tyr | Val | Met | Lys | Pro | Val | Pro | Glu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Gly | Phe | Thr | Val | Ile | Ala | Trp | Ala | Ser | Leu | Lys | Pro | Leu | Ala | Ala |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Trp | His | Gln | Gln | Leu | Ile | Ile | Trp | Leu | Pro | Ala | Gly | Ile | Leu | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ser | Leu | Val | Ala | Ala | Leu | Ile | Val | Leu | Arg | Ile | Leu | Arg | Arg | Leu | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Pro | Arg | His | Arg | Leu | Ile | Asp | Ala | Ile | Asn | Asn | Arg | Glu | Ile | Glu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Val | His | Tyr | Gln | Pro | Ile | Val | Ala | Leu | Cys | Ser | Gly | Lys | Leu | Val | Gly |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Glu | Ala | Leu | Met | Arg | Trp | Pro | Gln | Pro | Glu | Gly | Ser | Asn | Leu | Ser |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Pro | Asn | Leu | Phe | Val | Pro | Leu | Ala | Glu | Gln | Thr | Gly | Leu | Ile | Ser | Thr |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Thr | Arg | Leu | Val | Val | Asn | Glu | Val | Phe | Glu | Asp | Leu | Gly | Ala | Trp |
| | | | 340 | | | | 345 | | | | | | 350 | | |
| Leu | His | His | His | Pro | Glu | Leu | His | Ile | Ser | Val | Asn | Leu | Ala | Pro | Ser |
| | | 355 | | | | | 360 | | | | | 365 | | | |

Asp Leu Thr Ser Pro Glu Leu Pro Arg Gln Leu Ser Gln Leu Leu Asn
 370 375 380
 Lys Trp Gly Val His Pro Arg Gln Ile Ala Leu Glu Leu Thr Glu Arg
 385 390 395 400
 Gly Phe Ala Asp Pro Ala Val Ser Val Pro Ala Ile Ala Ala Phe Arg
 405 410 415
 Arg Ala Gly His Ala Ile Tyr Ile Asp Asp Phe Gly Thr Gly Tyr Ser
 420 425 430
 Ser Leu Ser Tyr Leu Gln Asp Leu Asp Val Asp Thr Leu Lys Ile Asp
 435 440 445
 Lys Ser Phe Val Asp Ala Leu Glu Tyr Lys His Val Thr Pro His Ile
 450 455 460
 Ile Glu Met Ala Lys Ser Leu Lys Leu Ala Met Val Ala Glu Gly Ile
 465 470 475 480
 Glu Thr Glu Gly Gln Ile Glu Trp Leu His Arg His Gly Val Gln Tyr
 485 490 495
 Gly Gln Gly Trp Tyr Phe Ser Lys Ala Leu Pro Lys Glu Asp Phe Ile
 500 505 510
 Leu Trp Ala Ala His Asn Leu Arg Lys
 515 520

<210> 8083

<211> 513

<212> PRT

<213> Enterobacter cloacae

<400> 8083

Thr Asp Ile Lys Leu Tyr Gln Thr Thr Tyr His Phe Leu Phe Ser Glu
 1 5 10 15
 Val Pro Gly Ser Ile Phe Gly Glu Asn Gly Thr Met Ile Asn Val Gln
 20 25 30
 Phe Ser Asn Ser Gly Leu His Met Ser Ser Arg Arg Phe Gly Ser Gln
 35 40 45
 Ser Leu Val Arg Leu Leu Gly His Trp Gln Gln Ala Ser Ser Arg Thr
 50 55 60
 Pro Leu Trp Arg Gln Leu Ala Asp Ala Leu Arg Leu Leu Ile Leu Asp
 65 70 75 80
 Gly Arg Leu Ala Leu Asn Thr Arg Leu Pro Gly Glu Arg Glu Leu Ala
 85 90 95
 Thr Ala Leu Ser Val Ser Arg Thr Thr Ile Ser Ser Ala Leu Ala His
 100 105 110
 Leu Arg Glu Glu Gly Tyr Leu Glu Ser Arg His Gly Ser Gly Ser Arg
 115 120 125
 Ala Ile Leu Pro Asp Ser Arg Ala Val Pro Thr Leu Ser Thr Ala Ser
 130 135 140
 Ala Ala Leu Asp Leu Ser Thr Ala Ala Leu Asn Ala Gly Pro Glu Ile
 145 150 155 160
 His Gln Ala Tyr Ala His Ala Leu Thr Ala Ile Thr Pro Asn Leu Ala
 165 170 175
 Leu Thr Gly Tyr Asp Gln Leu Gly Leu Pro Ala Leu Arg Glu Ala Ile
 180 185 190
 Ala Ala Arg Tyr Thr Ala Arg Gly Leu Pro Thr Arg Ala Asp Glu Val
 195 200 205
 Met Val Val Asn Gly Ala Val Ser Gly Phe Ala Leu Ile Leu Arg Met
 210 215 220
 Met Thr Gly Pro Gly Asp Arg Val Val Val Asp His Pro Thr Tyr Pro
 225 230 235 240
 Leu Ala Ile Ala Ala Ile Gln Gly Ala Leu Cys Arg Pro Val Gly Val
 245 250 255
 Ser Leu Pro Glu Thr Gly Trp Asp Thr Asp Gly Phe Ala Ala Thr Leu
 260 265 270

Ala Gln Thr Ala Pro Arg Leu Ala Tyr Leu Met Pro Asp Phe His Asn
 275 280 285
 Pro Thr Gly Arg Cys Met Asp Ala Ala Thr Arg Gln Thr Ile Thr Asp
 290 295 300
 Ile Ala Ala Gln Thr Arg Thr Thr Leu Val Val Asp Glu Thr Met Val
 305 310 315 320
 Asp Leu Trp Phe Asp Ala Pro Pro Pro Pro Leu Ala Ala Phe Asn
 325 330 335
 Pro Glu Ala Ala Val Met Thr Leu Gly Ser Ala Gly Lys Ser Phe Trp
 340 345 350
 Gly Gly Leu Arg Leu Gly Trp Ile Arg Ala Ser Ser Arg Thr Ile Ala
 355 360 365
 Thr Leu Ala Gln Thr Arg Asp Thr Leu Asp Leu Gly Ser Pro Val Leu
 370 375 380
 Glu Gln Leu Ala Thr Leu Trp Leu Ile Glu Asn Ser Glu Thr Phe Leu
 385 390 395 400
 Pro Ala Arg Arg Glu Met Leu Ala Glu Arg Arg Asp Arg Cys Gly Gln
 405 410 415
 Met Leu Arg Glu His Phe Pro Glu Trp Arg Phe Gln Glu Ala Glu Gly
 420 425 430
 Gly Leu Ser Tyr Trp Ile Glu Leu Pro Gly Met Leu Ala Thr Gln Leu
 435 440 445
 Ala Ala Arg Ala Glu Thr Thr Gly Ile Ile Met Gly Thr Gly Thr Arg
 450 455 460
 Phe Gly Leu Ser Gly Ala Phe Asp Arg Tyr Leu Arg Met Pro Phe Ser
 465 470 475 480
 Leu Ser Pro Pro Glu Leu Glu Glu Ala Leu Leu Arg Ile Lys Pro Leu
 485 490 495
 Trp Arg Ala Leu Asn Lys Ser Val Ala Pro Val Lys Arg Ser Leu Val
 500 505 510

<210> 8084

<211> 110

<212> PRT

<213> Enterobacter cloacae

<400> 8084

Phe Pro Ala Gly Glu Thr Met Asp Glu His Asp Thr Phe Pro Gln Arg
 1 5 10 15
 Val Trp Gln Ile Val Ala Ser Ile Pro Glu Gly Cys Val Thr Thr Tyr
 20 25 30
 Gly Glu Val Ala Arg Leu Ala Gly Ser Pro Arg Ala Ala Arg Gln Val
 35 40 45
 Gly Gly Val Leu Arg Arg Leu Pro Glu Gly Ser Thr Leu Pro Trp His
 50 55 60
 Arg Val Val Asn Arg His Gly Ala Ile Ser Leu Thr Gly Pro Asp Leu
 65 70 75 80
 Gln Arg Gln Arg Gln Ala Leu Leu Ser Glu Gly Val Gln Val Ser Gly
 85 90 95
 Ala Gly Gln Ile Asp Met Gln Lys Tyr Arg Trp Glu Tyr
 100 105 110

<210> 8085

<211> 314

<212> PRT

<213> Enterobacter cloacae

<400> 8085

Asp Tyr Ser Thr His Arg Thr Thr Ile Val Ser Ala Leu Tyr Ser Ala


```

1           5           10           15
Tyr Leu Ser Pro Arg Arg Leu Leu Arg Thr Thr Met Ser Gln Ala Leu
20 30
Asn Asn Leu Leu Thr Leu Leu Asn Leu Glu Lys Ile Glu Gly Leu
35 40 45
Phe Arg Gly Gln Ser Glu Asp Leu Gly Leu Arg Gln Val Phe Gly Gly
50 55 60
Gln Val Val Gly Gln Ala Leu Tyr Ala Ala Lys Glu Thr Val Pro Ala
65 70 75 80
Asp Arg Leu Val His Ser Phe His Ser Tyr Phe Leu Arg Pro Gly Asp
85 90 95
Ser Ala Lys Pro Ile Val Tyr Asp Val Glu Val Leu Arg Asp Gly Gln
100 105 110
Ser Phe Ser Ala Arg Arg Val Ala Ala Ile Gln His Gly Lys Pro Ile
115 120 125
Phe Tyr Met Thr Ala Ser Phe Gln Ala Pro Glu Pro Gly Tyr Glu His
130 135 140
Gln Lys Lys Met Pro Pro Ala Pro Ser Pro Asp Asp Leu Lys Ser Glu
145 150 155 160
Thr Glu Ile Ala Arg Ala Leu Ala His Leu Leu Pro Pro Gln Val Lys
165 170 175
Glu Lys Phe Leu Cys Asp Lys Pro Leu Glu Ile Arg Pro Val Glu Phe
180 185 190
His Asn Pro Met Lys Gly His Thr Ala Glu Pro Ala Arg Gln Val Trp
195 200 205
Ile Arg Ala Asn Gly Ser Val Pro Ala Asp Leu Arg Val His Gln Tyr
210 215 220
Leu Leu Gly Tyr Ala Ser Asp Phe Asn Phe Leu Pro Val Ala Leu Gln
225 230 235 240
Pro His Gly Val Gly Phe Leu Glu Lys Gly Met Gln Val Ala Thr Ile
245 250 255
Asp His Ser Met Trp Phe His Arg Pro Phe Asp Met Asn Glu Trp Leu
260 265 270
Leu Tyr Ser Val Glu Ser Thr Ser Ala Ser Ser Ala Arg Gly Phe Val
275 280 285
Arg Gly Glu Phe Tyr Thr Gln Asp Gly Val Leu Val Ala Ser Thr Val
290 295 300
Gln Glu Gly Val Met Arg Asn Arg Gly
305 310

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<210> 8086

<211> 168

<212> PRT

<213> Enterobacter cloacae

<400> 8086

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Arg Cys Asn Arg Val Ile Thr Cys Thr Ala Ala Lys Ile Cys Gln Asp
1 5 10 15
Lys Glu Val Ile Pro Val Met Thr Ser Glu Pro Ile Thr Thr Lys Gly
20 25 30
Tyr Cys Ala Met Gln Thr Gln Ile Lys Val Arg Gly Tyr His Leu Asp
35 40 45
Val Tyr Gln His Val Asn Asn Ala Arg Tyr Leu Glu Phe Leu Glu Glu
50 55 60
Ala Arg Trp Asp Gly Leu Glu Asn Ser Glu Ser Phe Leu Trp Leu Thr
65 70 75 80
Ala His Asn Ile Ala Phe Val Val Val Asn Ile Asn Ile Asn Tyr Arg
85 90 95
Arg Pro Ala Val Leu Gly Asp Val Leu Thr Val Thr Ser Glu Val Gln
100 105 110
Gln Leu Asn Gly Lys Ser Gly Val Leu Ser Gln Val Val Thr Leu Glu

```



```
<210> 8087
<211> 121
<212> PRT
<213> Enterobacter cloacae
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```
<210> 8088
<211> 207
<212> PRT
<213> Enterobacter cloacae
```

| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 8088 | | | | | | | | | | | | | | | |
| Ser | Ala | Phe | Ile | Ser | Leu | Met | Ala | Cys | Leu | Thr | Gln | Val | Leu | Phe | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Val | Ile | Arg | Leu | Ser | Phe | Cys | Ala | Gln | His | Ser | Glu | Lys | His | Arg |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Lys | Asn | Cys | Cys | Tyr | Leu | Thr | Phe | Lys | Ile | Glu | Cys | Lys | Glu | Asn | Asn |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Leu | Phe | Glu | Val | Ala | Met | Leu | Asp | Lys | Ile | Asp | Arg | Lys | Leu | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Leu | Leu | Gln | Ser | Asp | Cys | Thr | Leu | Ser | Leu | Gln | Ala | Leu | Ala | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Val | Asn | Leu | Thr | Thr | Thr | Pro | Cys | Trp | Lys | Arg | Leu | Lys | Lys | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Asp | Asp | Gly | Ile | Leu | Leu | Gly | Arg | Val | Ala | Leu | Leu | Asp | Pro | Glu |
| | | | 100 | | | | 105 | | | | | | 110 | | |
| Lys | Leu | Gly | Leu | Gly | Leu | Thr | Ala | Phe | Val | Leu | Ile | Lys | Thr | Gln | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| His | Ser | Ser | Glu | Trp | Tyr | Cys | Arg | Phe | Val | Thr | Gln | Val | Ser | Asp | Met |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| Pro | Glu | Val | Leu | Gly | Phe | Trp | Arg | Met | Ala | Gly | Glu | Tyr | Asp | Tyr | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Met | Arg | Val | Gln | Val | Ala | Asp | Met | Lys | Arg | Tyr | Asp | Asp | Phe | Tyr | Lys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Leu | Val | Asn | Ser | Val | Pro | Gly | Leu | Ser | Asp | Val | Thr | Ser | Ser | Phe |
| | | | 180 | | | | | 185 | | | | | 190 | | |

Ala Met Glu Gln Ile Lys Tyr Thr Thr Ala Leu Pro Ile Glu
 195 200 205

<210> 8089

<211> 595

<212> PRT

<213> Enterobacter cloacae

<400> 8089

Leu Leu Lys Ile Pro Ser Gly Lys Asp Arg Val Arg Leu Phe Ala Gln
 1 5 10 15
 Leu Ser Trp Tyr Phe Arg Arg Glu Trp Gln Arg Tyr Leu Gly Ala Val
 20 25 30
 Ala Leu Leu Ile Ile Ile Ala Ile Leu Gln Leu Phe Pro Lys Val
 35 40 45
 Val Gly Tyr Val Val Asp Gly Val Thr Glu Gln His Tyr Thr Ala Ala
 50 55 60
 Arg Val Met Met Trp Val Gly Thr Leu Val Leu Thr Ala Val Val Val
 65 70 75 80
 Tyr Leu Leu Arg Tyr Val Trp Arg Val Leu Leu Phe Gly Ala Ser Tyr
 85 90 95
 Gln Leu Ala Val Glu Leu Arg Glu Asp Phe Tyr Arg Gln Leu Ser Arg
 100 105 110
 Gln His Pro Glu Phe Tyr Leu Arg His Arg Thr Gly Asp Leu Ile Ala
 115 120 125
 Arg Ala Thr Asn Asp Val Asp Arg Val Val Phe Ala Ala Gly Glu Gly
 130 135 140
 Val Leu Thr Leu Val Asp Ser Leu Val Met Gly Cys Ala Val Leu Ile
 145 150 155 160
 Val Met Ser Thr Gln Ile Ser Trp Glu Leu Thr Leu Leu Ala Leu Leu
 165 170 175
 Pro Met Pro Leu Met Ala Leu Ala Ile Asn Arg Tyr Gly Glu Gln Leu
 180 185 190
 His Glu Arg Phe Lys Leu Ala Gln Ala Ala Phe Ser Ser Leu Asn Asp
 195 200 205
 Arg Thr Gln Glu Ser Met Thr Ser Ile Arg Met Ile Lys Ala Phe Gly
 210 215 220
 Leu Glu Asp Arg Gln Ser Ala Leu Phe Ala Ala Asp Ala Asp Thr
 225 230 235 240
 Gly Ala Lys Asn Met Arg Val Ala Arg Ile Asp Ala Arg Phe Asp Pro
 245 250 255
 Thr Ile Tyr Ile Ala Ile Gly Met Ala Asn Leu Leu Ala Val Gly Gly
 260 265 270
 Gly Ser Trp Met Val Val Arg Gly Thr Met Thr Leu Gly Gln Leu Thr
 275 280 285
 Ser Phe Ala Met Tyr Leu Gly Leu Met Ile Trp Pro Met Leu Ala Leu
 290 295 300
 Ala Trp Met Phe Asn Ile Val Glu Arg Gly Ser Ala Ala Tyr Ser Arg
 305 310 315 320
 Ile Arg Ala Met Leu Ala Glu Val Pro Val Val Asn Asp Gly Ser Glu
 325 330 335
 Pro Val Pro Glu Gly Pro Gly Ile Leu Lys Ala Asp Ile Arg Ala Phe
 340 345 350
 Ile Tyr Pro Gln Thr Glu His Pro Val Leu Glu Asn Val Ser Phe Thr
 355 360 365
 Leu Arg Pro Gly Gln Met Leu Gly Ile Cys Gly Pro Thr Gly Ser Gly
 370 375 380
 Lys Ser Thr Ile Leu Ser Leu Ile Gln Arg His Phe Asp Val Ser Glu
 385 390 395 400
 Gly Asp Ile Arg Phe His Asp Ile Pro Leu Pro Arg Leu Leu Leu Asp
 405 410 415

Asp Trp Arg Ser Arg Leu Ala Val Val Ser Gln Thr Pro Phe Leu Phe
 420 425 430
 Ser Asp Thr Ile Ala Asn Asn Ile Ala Leu Gly Cys Pro Thr Ala Thr
 435 440 445
 Gln Asp Gln Ile Glu His Val Ala Arg Leu Ala Ser Val His Glu Asp
 450 455 460
 Ile Leu Arg Leu Pro Gln Gly Tyr Asp Thr Glu Val Gly Glu Arg Gly
 465 470 475 480
 Val Met Leu Ser Gly Gly Gln Lys Gln Arg Ile Ser Ile Ala Arg Ala
 485 490 495
 Leu Leu Leu Asp Ala Glu Ile Leu Ile Leu Asp Asp Ala Leu Ser Ala
 500 505 510
 Val Asp Gly Arg Thr Glu His Gln Ile Leu His Asn Leu Arg Gln Trp
 515 520 525
 Gly Glu Gly Arg Thr Val Ile Ile Ser Ala His Arg Leu Ser Ala Leu
 530 535 540
 Thr Glu Ala Ser Glu Ile Leu Val Leu Gln His Gly His Ile Ala Gln
 545 550 555 560
 Arg Gly Gln His Glu Gln Leu Ala Gly Gln Thr Gly Trp Tyr Arg Asp
 565 570 575
 Met Tyr Arg Tyr Gln Gln Leu Glu Ala Ala Leu Asp Glu Glu Val Ala
 580 585 590
 Asp Ala
 595

<210> 8090

<211> 194

<212> PRT

<213> Enterobacter cloacae

<400> 8090

Asn Asp Ile Gly Trp Asp Arg Ser Arg Arg Cys Ile Asp Asp Lys Glu
 1 5 10 15
 Thr Ser Met Lys Leu Val Pro Met Leu Ser Gly Val Ala Met Ala Val
 20 25 30
 Ala Leu Ser Ala Cys Ala Asp Lys Ser Ala Asp Val Ala Val Pro Thr
 35 40 45
 Ala Thr Pro Asn Gly Ile Asn Thr Leu Ser Gln Gln Ala Ile Arg Gln
 50 55 60
 Pro Asn Val Ser Gly Thr Ile Trp Ile Lys Gln Lys Val Ala Leu Pro
 65 70 75 80
 Pro Asp Ala Val Leu Thr Val Thr Leu Ser Asp Ala Ser Leu Ala Asp
 85 90 95
 Ala Pro Ser Lys Val Leu Ala Gln Arg Ala Val Arg Thr Glu Gly Lys
 100 105 110
 Gln Ala Pro Phe Ser Phe Val Leu Pro Tyr Asn Pro Ser Asp Val Gln
 115 120 125
 Pro Asn Ala Arg Ile Leu Leu Ser Ala Ala Val Thr Ile Asn Asp Lys
 130 135 140
 Leu Val Phe Ile Thr Asp Thr Val Gln Glu Ala Val Asn Lys Gly Gly
 145 150 155 160
 Thr Lys Ile Asp Leu Thr Leu Val Pro Val Gln Gln Thr Glu Val Pro
 165 170 175
 Val Ala Thr Gln Thr Asn Gln Pro Thr Leu Pro Thr Pro Pro Thr Gln
 180 185 190
 Met

<210> 8091

<211> 374

<212> PRT

<213> Enterobacter cloacae

<400> 8091

Trp Arg Asn Cys Val Arg Ile Glu Thr Ser Leu Phe Thr Thr Pro Glu
 1 5 10 15
 Cys Met Lys Ala Ile Thr Leu Tyr Asp Val Ala Arg Val Ala Gly Val
 20 25 30
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 35 40 45
 Lys Lys Lys Lys Lys Lys Val Arg Gln Ala Met Ala Ala Leu His Tyr
 50 55 60
 Val Pro Asn Arg Gly Ala Gln Gln Leu Ala Gly Lys Arg Thr Arg Thr
 65 70 75 80
 Leu Gly Leu Met Thr Ser Asp Leu Ala Leu His Ala Pro Ser Gln Ile
 85 90 95
 Ala Ser Ala Val Lys Ser Arg Ala Val Glu Gln Gly Ala Ser Val Leu
 100 105 110
 Ile Ser Met Val Glu Gln Pro Ala Gln Cys Gln Ala Ala Leu Gln Glu
 115 120 125
 Leu Leu Ala Gln Arg Val Glu Ala Leu Leu Val Asn Val Pro Leu Glu
 130 135 140
 Asp Ala Leu Ala Glu Met Leu Gln Glu Met Ala Ser Pro Thr Pro Val
 145 150 155 160
 Leu Phe Leu Asp Val Ser Pro Thr Ala Arg Val Asn Ser Leu Val Phe
 165 170 175
 Asn Ala Glu Gln Gly Ala Ala Leu Gly Ala Glu His Leu Leu Ser Leu
 180 185 190
 Gly His Gln Arg Ile Ala Leu Leu Ala Gly Pro Glu Ser Ser Val Ser
 195 200 205
 Ala Arg Ala Arg Leu Ala Gly Trp Lys Thr Thr Leu Ala Gln Ala Gly
 210 215 220
 Val Glu Ala Phe Ala Val Ala Gln Gly Asp Trp Ser Ala Ala Ser Gly
 225 230 235 240
 Tyr Glu Lys Gly His Gln Leu Leu Ala Gly Ala Gln Leu Pro Glu Ala
 245 250 255
 Ile Phe Val Ala Asn Asp Gln Met Ala Leu Gly Val Ile Arg Ala Cys
 260 265 270
 Ala Glu Lys Gly Val Ala Val Pro Gly Gln Ile Ser Val Val Gly Phe
 275 280 285
 Asp Asp Thr Ala Asp Ser Ala Trp Phe Ser Pro Pro Leu Thr Thr Val
 290 295 300
 Arg Gln Ala Phe Arg Glu Ala Gly Glu Arg Ser Val Glu Trp Leu Met
 305 310 315 320
 Ala Pro Ala His His Asp Glu Cys Trp Gln Glu Gln Leu Pro Val Thr
 325 330 335
 Leu Ile Val Arg His Ser Thr Ala Pro Arg Ala Ala Gln Gln Ala Asp
 340 345 350
 Arg Glu Asp Leu Ala Gln Gln Leu Arg Thr Leu Ala Leu Leu Ala Glu
 355 360 365
 Lys Leu Ala Arg Ser
 370

<210> 8092

<211> 678

<212> PRT

<213> Enterobacter cloacae

<400> 8092

Cys Ala Phe Phe Val Cys Pro Asp Leu Ile Cys Ala Ser Leu Cys Glu
 1 5 10 15
 Leu Trp Ala Asp Asn Cys Pro Val Phe Leu Ser Gln Tyr Ala Phe Thr

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| | | | 20 | | | | | | 25 | | | | | | 30 | | |
| Arg | Asp | Gly | Gln | Asp | Phe | Pro | Ser | Ala | Ser | Gly | Asn | Gln | Ser | Pro | Thr | | |
| | | 35 | | | | | 40 | | | | | 45 | | | | | |
| Ala | Glu | Cys | Cys | Tyr | Thr | Met | Met | Asp | Ser | Leu | Arg | Thr | Ala | Ala | Asn | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Ser | Leu | Val | Leu | Lys | Ile | Ile | Phe | Gly | Ile | Ile | Ile | Val | Ser | Phe | Ile | | |
| 65 | | | | 70 | | | | | 75 | | | | | | 80 | | |
| Leu | Thr | Gly | Val | Ser | Ser | Tyr | Leu | Ile | Gly | Gly | Gly | Ala | Asn | Tyr | Ala | | |
| | | | | 85 | | | | | 90 | | | | | 95 | | | |
| Ala | Lys | Val | Asn | Gly | Gln | Glu | Ile | Ser | Arg | Gly | Gln | Phe | Glu | Asn | Ala | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Phe | Ala | Gly | Glu | Arg | Asn | Arg | Met | Gln | Gln | Gln | Leu | Gly | Asp | Gln | Tyr | | |
| | | 115 | | | | | 120 | | | | | 125 | | | | | |
| Ser | Glu | Leu | Ala | Ala | Asn | Glu | Gly | Tyr | Met | Lys | Asn | Leu | Arg | Gln | Gln | | |
| | 130 | | | | | 135 | | | | 140 | | | | | | | |
| Thr | Leu | Asn | Arg | Leu | Ile | Asp | Glu | Ala | Leu | Leu | Asp | Gln | Tyr | Ala | Lys | | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | | |
| Ser | Leu | Gly | Leu | Gly | Ile | Ser | Asp | Glu | Gln | Val | Lys | Lys | Ala | Ile | Phe | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | |
| Ser | Thr | Gln | Ala | Phe | Gln | Ser | Asn | Gly | Lys | Phe | Asp | Asn | Ala | Arg | Tyr | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | |
| Asn | Ser | Ile | Val | Asn | Gln | Met | Gly | Met | Thr | Ala | Asp | Gln | Tyr | Ala | Gln | | |
| | | 195 | | | | | 200 | | | | | 205 | | | | | |
| Ala | Leu | Arg | Asn | Gln | Leu | Thr | Thr | Gln | Gln | Leu | Ile | Asn | Ala | Val | Val | | |
| | 210 | | | | | 215 | | | | | 220 | | | | | | |
| Gly | Thr | Asp | Phe | Met | Leu | Lys | Gly | Glu | Thr | Glu | Lys | Leu | Ala | Ala | Leu | | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | | |
| Val | Ala | Gln | Gln | Arg | Val | Val | Arg | Glu | Ala | Thr | Ile | Asp | Val | Asn | Ala | | |
| | | | | 245 | | | | | 250 | | | | | 255 | | | |
| Leu | Ala | Ala | Lys | Gln | Gln | Val | Ser | Asp | Ala | Glu | Val | Asn | Ala | Tyr | Tyr | | |
| | | | 260 | | | | | 265 | | | | | 270 | | | | |
| Glu | Gln | Asn | Lys | Asn | Asn | Phe | Ile | Ser | Pro | Glu | Gln | Phe | Arg | Val | Ser | | |
| | | 275 | | | | | 280 | | | | | 285 | | | | | |
| Tyr | Ile | Lys | Leu | Asp | Ala | Ala | Ala | Met | Gln | Glu | Asn | Ala | Thr | Asp | Ala | | |
| | 290 | | | | | 295 | | | | | 300 | | | | | | |
| Glu | Ile | Gln | Ser | Tyr | Tyr | Asp | Gln | His | Gln | Asp | Gln | Phe | Thr | Gln | Pro | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | | |
| Gln | Arg | Asn | Arg | Tyr | Ser | Val | Ile | Gln | Thr | Lys | Thr | Glu | Ala | Glu | Ala | | |
| | | | | 325 | | | | | 330 | | | | | 335 | | | |
| Lys | Ala | Val | Leu | Asp | Glu | Leu | Asn | Lys | Gly | Ala | Asp | Phe | Ala | Thr | Leu | | |
| | | | 340 | | | | | 345 | | | | | 350 | | | | |
| Ala | Lys | Ala | Lys | Ser | Thr | Asp | Ile | Ser | Ala | Lys | Asn | Gly | Gly | Asp | | | |
| | | 355 | | | | | 360 | | | | 365 | | | | | | |
| Met | Gly | Trp | Leu | Glu | Glu | Ser | Thr | Thr | Pro | Asp | Glu | Leu | Lys | Asn | Ala | | |
| | 370 | | | | | 375 | | | | | 380 | | | | | | |
| Gly | Leu | Lys | Glu | Lys | Gly | Gln | Leu | Ser | Gly | Val | Ile | Lys | Ser | Ser | Val | | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | | |
| Gly | Phe | Leu | Val | Ala | Arg | Leu | Asp | Asp | Val | Val | Ala | Ala | Lys | Thr | Lys | | |
| | | | | 405 | | | | | 410 | | | | | 415 | | | |
| Pro | Leu | Thr | Asp | Val | Arg | Asp | Asp | Ile | Ala | Ala | Lys | Val | Lys | Gln | Glu | | |
| | | | 420 | | | | | 425 | | | | | 430 | | | | |
| Lys | Ala | Leu | Asp | Ala | Phe | Tyr | Ala | Leu | Gln | Gln | Lys | Val | Ser | Asp | Ala | | |
| | | 435 | | | | | 440 | | | | | 445 | | | | | |
| Ala | Ser | Asn | Asp | Asn | Glu | Ser | Leu | Ala | Gly | Ala | Glu | Gln | Ala | Ala | Gly | | |
| | 450 | | | | | 455 | | | | | 460 | | | | | | |
| Val | Lys | Ala | Val | Glu | Thr | Gly | Trp | Phe | Ser | His | Glu | Asn | Leu | Pro | Glu | | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | | |
| Glu | Leu | Asn | Phe | Lys | Pro | Val | Ser | Asp | Ala | Ile | Phe | Asn | Gly | Gly | Leu | | |
| | | | | 485 | | | | | 490 | | | | | 495 | | | |
| Val | Gly | Glu | Asn | Gly | Thr | Pro | Gly | Ser | Asn | Ser | Asp | Ile | Ile | Thr | Val | | |
| | | | 500 | | | | | 505 | | | | | 510 | | | | |

Asp Gly Asp Arg Ala Phe Val Leu Arg Val Ser Glu His Lys Ala Glu
 515 520 525
 Ala Val Lys Pro Leu Ala Glu Val Lys Asp Gln Val Val Ala Leu Val
 530 535 540
 Lys His Asn Lys Ala Ala Gln Gln Ala Lys Leu Asp Ala Glu Lys Ile
 545 550 555 560
 Leu Ala Asp Leu Lys Ala Gly Lys Asn Asp Ala Leu Lys Ala Ala Gly
 565 570 575
 Leu Ser Phe Gly Glu Ala Lys Thr Leu Ser Arg Thr Gly Gln Asp Pro
 580 585 590
 Val Ser Gln Ala Ala Phe Gly Leu Ser Leu Pro Ala Lys Asp Lys Pro
 595 600 605
 Val Phe Gly Thr Thr Thr Asp Met Gln Gly Asn Val Val Leu Ala
 610 615 620
 Leu Asp Glu Val Lys Ala Gly Thr Leu Pro Asp Ala Gln Lys Lys Ala
 625 630 635 640
 Met Val Gln Gly Ile Thr Gln Asn Asn Ala Gln Ile Ala Phe Glu Ala
 645 650 655
 Leu Met Ser Asn Leu Arg Lys Glu Ala Lys Ile Lys Leu Gly Asp Val
 660 665 670
 Val Thr Gln Glu Gln
 675

<210> 8093

<211> 682

<212> PRT

<213> Enterobacter cloacae

<400> 8093

Phe Trp Met Met Arg Cys Pro Arg Leu Thr Gly Val Leu Asn Ile Lys
 1 5 10 15
 Phe Cys Ile Thr Phe Ala Ser Gly Glu Arg Gly Ala Arg Ser Ser Leu
 20 25 30
 Ala Arg Thr Val Cys Arg Arg Leu Pro Lys Pro Val Lys Phe Trp Cys
 35 40 45
 Phe Ser Thr Gly Ile Leu Pro Ser Val Val Ser Met Ser Ser Ser Pro
 50 55 60
 Gly Arg Pro Ala Gly Ile Gly Ile Cys Thr Ala Ile Asn Ser Leu Lys
 65 70 75 80
 Pro Arg Trp Met Arg Arg Trp Pro Met Arg Lys Phe Gly Gln Met Trp
 85 90 95
 Pro Thr Leu Lys Arg Leu Leu Ala Tyr Gly Ser Pro Trp Arg Lys Pro
 100 105 110
 Leu Ser Ile Ala Val Leu Leu Leu Trp Ile Ala Ala Ile Ala Glu Val
 115 120 125
 Thr Gly Pro Leu Leu Ile Ser Tyr Phe Ile Asp Asn Met Val Ala Lys
 130 135 140
 Ser Tyr Leu Pro Leu Gly Leu Val Ala Gly Leu Gly Val Ala Tyr Val
 145 150 155 160
 Gly Leu Gln Leu Thr Ala Ala Gly Leu His Tyr Ala Gln Ser Leu Leu
 165 170 175
 Phe Asn Arg Ala Ala Val Gly Val Val Gln Gln Leu Arg Thr Asp Val
 180 185 190
 Met Asp Ala Ala Leu Arg Gln Pro Leu Ser Glu Phe Asn Thr Gln Pro
 195 200 205
 Val Gly Gln Val Ile Ser Arg Val Thr Asn Asp Thr Glu Val Ile Arg
 210 215 220
 Asp Leu Tyr Val Thr Val Val Ala Thr Val Leu Arg Ser Ala Ala Leu
 225 230 235 240
 Ile Gly Ala Met Leu Val Ala Met Phe Ser Leu Asp Trp Arg Met Ala
 245 250 255

Leu Val Ala Ile Thr Ile Phe Pro Ala Val Leu Ile Val Met Val Ile
 260 265 270
 Tyr Gln Arg Tyr Ser Thr Pro Ile Val Arg Arg Val Arg Ala Tyr Leu
 275 280 285
 Ala Asp Ile Asn Asp Gly Phe Asn Glu Val Ile Asn Gly Met Ser Val
 290 295 300
 Ile Gln Gln Phe Arg Gln Gln Ala Arg Phe Gly Glu Arg Met Gly Glu
 305 310 315 320
 Ala Ser Arg Ser His Tyr Met Ala Arg Met Gln Thr Leu Arg Leu Asp
 325 330 335
 Gly Phe Leu Leu Arg Pro Leu Leu Ser Leu Phe Ser Ala Leu Val Leu
 340 345 350
 Cys Gly Leu Leu Met Leu Phe Gly Leu Thr Thr Arg Gly Thr Ile Glu
 355 360 365
 Val Gly Val Leu Tyr Ala Phe Ile Ser Tyr Leu Gly Arg Leu Asn Glu
 370 375 380
 Pro Leu Ile Glu Leu Thr Thr Gln Gln Ser Met Leu Gln Gln Ala Val
 385 390 395 400
 Val Ala Gly Glu Arg Val Phe Glu Leu Met Asp Arg Pro Arg Gln Thr
 405 410 415
 Tyr Gly Asp Asp Glu Arg Pro Leu Glu Ser Gly Ser Ile Ala Phe Asp
 420 425 430
 His Val Ser Phe Ala Tyr Arg Asp Asp Gln Leu Val Leu Gln Asp Ile
 435 440 445
 Asn Leu Glu Val Pro Ser Arg Gly Phe Val Ala Leu Val Gly His Thr
 450 455 460
 Gly Ser Gly Lys Ser Thr Leu Ala Ser Leu Leu Met Gly Tyr Tyr Pro
 465 470 475 480
 Leu Thr Gln Gly Glu Ile Arg Leu Asp Gly Arg Pro Leu Ala Ser Leu
 485 490 495
 Ser His Asn Ala Leu Arg Lys Gly Val Ala Met Val Gln Gln Asp Pro
 500 505 510
 Val Val Leu Ala Asp Thr Phe Tyr Ala Asn Val Thr Leu Gly Arg Pro
 515 520 525
 Phe Thr Pro Glu Gln Val Trp Glu Val Leu Glu Thr Val Gln Leu Ala
 530 535 540
 Asp Leu Ala Arg Gly Leu Ser Glu Gly Ile Asn Thr Arg Leu Gly Glu
 545 550 555 560
 Gln Gly Asn Asn Leu Ser Val Gly Gln Lys Gln Leu Leu Ala Leu Ala
 565 570 575
 Arg Val Leu Ile Glu Thr Pro Gln Val Leu Ile Leu Asp Glu Ala Thr
 580 585 590
 Ala Ser Ile Asp Ser Gly Thr Glu Gln Ala Ile Gln Gln Ala Leu Ala
 595 600 605
 Ala Val Arg Asp His Thr Thr Leu Val Val Ile Ala His Arg Leu Ser
 610 615 620
 Thr Ile Val Asp Ala Asp Thr Ile Leu Val Leu His Arg Gly Gln Ala
 625 630 635 640
 Val Glu Arg Gly Thr His Arg Ala Leu Leu Glu Ala Lys Gly Arg Tyr
 645 650 655
 Trp Gln Met Tyr Gln Leu Gln Leu Ala Gly Asp Glu Leu Ala Ala Ser
 660 665 670
 Val Arg Glu Glu Glu Ser Leu Ser Ala
 675 680

<210> 8094

<211> 446

<212> PRT

<213> Enterobacter cloacae

<400> 8094

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Arg | Ser | Gly | Val | Val | Ser | Asn | Ser | Trp | His | Thr | Val | Ile | Gly | Ile | Glu |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Lys | Met | Lys | Lys | Ala | Thr | Met | Lys | Thr | Gly | Leu | Gly | Ser | Leu | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Pro | Gly | Leu | Ala | Met | Ala | Ala | Pro | Ala | Val | Ala | Asp | Lys | Ala | Asp |
| | | 35 | | | | 40 | | | | | | 45 | | | |
| Asn | Ala | Phe | Met | Met | Ile | Cys | Thr | Ala | Leu | Val | Leu | Phe | Met | Thr | Ile |
| | 50 | | | | 55 | | | | | 60 | | | | | |
| Pro | Gly | Ile | Ala | Leu | Phe | Tyr | Gly | Gly | Leu | Ile | Arg | Gly | Lys | Asn | Val |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Ser | Met | Leu | Thr | Gln | Val | Ala | Val | Thr | Phe | Ala | Leu | Val | Cys | Val |
| | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Trp | Val | Val | Tyr | Gly | Tyr | Ser | Leu | Ala | Phe | Gly | Glu | Gly | Asn | Ala |
| | | 100 | | | | | 105 | | | | | | 110 | | |
| Phe | Phe | Gly | Asn | Val | Asn | Trp | Ala | Met | Leu | Lys | Asn | Ile | Glu | Leu | Thr |
| | 115 | | | | | 120 | | | | | 125 | | | | |
| Ala | Val | Met | Gly | Ser | Phe | Tyr | Gln | Tyr | Ile | His | Val | Ala | Phe | Gln | Gly |
| | 130 | | | | 135 | | | | | 140 | | | | | |
| Ser | Phe | Ala | Cys | Ile | Thr | Val | Gly | Leu | Ile | Val | Gly | Ala | Leu | Ala | Glu |
| 145 | | | | 150 | | | | | 155 | | | | | 160 | |
| Arg | Ile | Arg | Phe | Ser | Ala | Val | Leu | Ile | Phe | Val | Val | Val | Trp | Leu | Thr |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Leu | Ser | Tyr | Ile | Pro | Ile | Ala | His | Met | Val | Trp | Gly | Gly | Gly | Leu | Leu |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Ala | Ser | His | Gly | Ala | Leu | Asp | Phe | Ala | Gly | Gly | Thr | Val | Val | His | Ile |
| | 195 | | | | | 200 | | | | | 205 | | | | |
| Asn | Ala | Ala | Val | Ala | Gly | Leu | Val | Gly | Ala | Tyr | Leu | Ile | Gly | Lys | Arg |
| | 210 | | | | 215 | | | | | 220 | | | | | |
| Val | Gly | Phe | Gly | Lys | Glu | Ala | Phe | Lys | Pro | His | Asn | Leu | Pro | Met | Val |
| 225 | | | | 230 | | | | | 235 | | | | | 240 | |
| Phe | Thr | Gly | Thr | Ala | Ile | Leu | Tyr | Phe | Gly | Trp | Phe | Gly | Phe | Asn | Ala |
| | | | 245 | | | | | 250 | | | | | | 255 | |
| Gly | Ser | Ala | Ser | Ala | Ala | Asn | Glu | Ile | Ala | Ala | Leu | Ala | Phe | Val | Asn |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Thr | Val | Val | Ala | Thr | Ala | Gly | Ala | Ile | Leu | Ser | Trp | Val | Phe | Gly | Glu |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Trp | Ala | Val | Arg | Gly | Lys | Pro | Ser | Leu | Leu | Gly | Ala | Cys | Ser | Gly | Ala |
| | 290 | | | | 295 | | | | | 300 | | | | | |
| Ile | Ala | Gly | Leu | Val | Gly | Ile | Thr | Pro | Ala | Cys | Gly | Tyr | Val | Gly | Val |
| 305 | | | | 310 | | | | | 315 | | | | | 320 | |
| Gly | Gly | Ala | Leu | Leu | Ile | Gly | Ile | Val | Ala | Gly | Leu | Ala | Gly | Leu | Trp |
| | | | 325 | | | | | 330 | | | | | | 335 | |
| Gly | Val | Thr | Ala | Leu | Lys | Arg | Val | Leu | Arg | Val | Asp | Asp | Pro | Cys | Asp |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Val | Phe | Gly | Val | His | Gly | Val | Cys | Gly | Ile | Val | Gly | Cys | Ile | Met | Thr |
| | 355 | | | | | 360 | | | | | 365 | | | | |
| Gly | Ile | Phe | Ala | Ala | Gln | Ser | Leu | Gly | Gly | Val | Gly | Tyr | Ala | Glu | Gly |
| | 370 | | | | 375 | | | | | 380 | | | | | |
| Val | Thr | Met | Gly | His | Gln | Val | Leu | Val | Gln | Leu | Glu | Ser | Ile | Ala | Ile |
| 385 | | | | 390 | | | | | 395 | | | | | 400 | |
| Thr | Val | Val | Trp | Ser | Gly | Val | Val | Ala | Phe | Ile | Gly | Tyr | Lys | Leu | Ala |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Asp | Met | Thr | Val | Gly | Leu | Arg | Val | Pro | Glu | Glu | Gln | Glu | Arg | Glu | Gly |
| | | 420 | | | | | 425 | | | | | | 430 | | |
| Leu | Asp | Val | Asn | Ser | His | Gly | Glu | Asn | Ala | Tyr | Asn | Ala | | | |
| | 435 | | | | | | 440 | | | | | 445 | | | |

<210> 8095

<211> 226

<212> PRT

<213> Enterobacter cloacae

<400> 8095

Lys Leu Asp Ile Asn His Ser Ala Ile Phe Thr Glu Asp Gly Thr Trp
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 Tyr Phe Gly Glu Glu Lys Met Val Arg Arg Leu Val Gln Leu Tyr Val
 20 25 30
 Gly Leu Gly Leu Tyr Gly Leu Ser Thr Ala Met Phe Ile Arg Ser Asp
 35 40 45
 Leu Gly Val Asp Pro Trp Asp Val Phe His Leu Gly Val Ala Ile Gln
 50 55 60
 Thr Gly Met Ser Ile Gly Thr Val Ile Ile Leu Thr Gly Ala Ala Val
 65 70 75 80
 Leu Leu Leu Trp Ile Pro Leu Arg Gln Leu Pro Gly Leu Gly Thr Ile
 85 90 95
 Ser Asn Val Ile Cys Ile Gly Leu Ala Ala Asp Ala Ser Met Ala Leu
 100 105 110
 Ile Pro Glu Leu Thr Ser Leu Pro Val Arg Ile Thr Leu Leu Val Ser
 115 120 125
 Gly Ile Val Val Asn Ala Leu Ala Thr Gly Met Tyr Ile Gly Ala Gly
 130 135 140
 Phe Gly Ala Gly Pro Arg Asp Gly Leu Met Thr Gly Ile His Ala Arg
 145 150 155 160
 Leu Gly Trp Ser Ile Arg Ser Val Arg Thr Ala Ile Glu Val Thr Val
 165 170 175
 Leu Ile Val Gly Tyr Leu Leu Gly Gly Ala Phe Gly Val Gly Thr Val
 180 185 190
 Leu Tyr Ala Leu Thr Ile Gly Pro Leu Ile Gln Leu Cys Leu Pro Trp
 195 200 205
 Phe Arg Gln Arg Pro Arg Ile Gln Lys Ala Ala Gln Pro Glu Arg Ile
 210 215 220
 Val
 225

<210> 8096

<211> 1037

<212> PRT

<213> Enterobacter cloacae

<400> 8096

Ala Leu Arg Lys Glu Val Asp Met Ser Ser Thr Leu Pro Leu Thr Leu
 1 5 10 15
 Ser Ala Leu Leu Ala Lys Lys Lys Lys Lys Lys Gly Val Thr Gln
 20 25 30
 Trp Asn Arg Leu Ala Ala His Ala Pro Phe His Ser Trp Arg Asp Glu
 35 40 45
 Thr Phe Ala Arg Glu Asp Lys Pro Ser Arg Ser Lys Arg Leu Leu Asn
 50 55 60
 Gly Ile Trp Arg Phe Ser Phe Phe Pro Ala Pro Glu Gln Val Pro Glu
 65 70 75 80
 Ala Trp Ile Thr Asp Asp Leu Ala Asp Ala Val Glu Met Pro Val Pro
 85 90 95
 Ser Asn Trp Gln Met Gln Gly Phe Asp Thr Pro Ile Tyr Thr Asn Val
 100 105 110
 Thr Tyr Pro Ile Asn Val Asn Pro Pro Tyr Leu Pro Ala Glu Asn Pro
 115 120 125
 Thr Gly Cys Tyr Ser Leu Thr Phe Glu Met Asp Asp Ala Trp Met Cys
 130 135 140
 Ser Gly Gln Thr Arg Ile Ile Phe Asp Gly Val Asn Ser Ala Phe His
 145 150 155 160
 Leu Trp Cys Asn Gly Gln Trp Met Gly Tyr Ser Gln Asp Ser Arg Leu
 165 170 175

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Ala | Glu | Phe | Asp | Leu | Ser | Ala | Val | Leu | Arg | Pro | Gly | Gln | Asn | Arg |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Ala | Val | Met | Val | Leu | Arg | Trp | Cys | Asp | Gly | Ser | Tyr | Leu | Glu | Asp |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | Asp | Met | Trp | Arg | Met | Ser | Gly | Ile | Phe | Arg | Asp | Val | Ser | Leu | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| His | Lys | Pro | Glu | Thr | Arg | Ile | Ala | Asp | Tyr | Gln | Ile | Val | Thr | Asp | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Ala | Glu | Cys | Asp | Arg | Ala | Ile | Leu | Arg | Val | Asp | Val | Ala | Leu | Glu |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Thr | Arg | Tyr | Ala | Glu | Cys | Glu | Val | Ala | Phe | Thr | Leu | Trp | Arg | Asn |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Glu | Ala | Cys | Ala | Gln | Thr | Thr | Gln | Gln | Pro | Gly | Ser | Ala | Ile | Val |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Asp | Glu | Arg | Gly | Ser | Trp | Ala | Glu | Arg | Leu | Arg | Val | Ala | Ile | Pro | Val |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Ala | Pro | Ala | Leu | Trp | Ser | Ala | Glu | Thr | Pro | Glu | Cys | Tyr | Arg | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Ile | Ser | Leu | Arg | Asp | Ala | Gln | Gly | Asn | Val | Leu | Glu | Thr | Glu | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Cys | Asp | Val | Gly | Phe | Arg | Arg | Val | Glu | Ile | Ser | Asn | Gly | Gln | Leu | Lys |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Leu | Asn | Gly | Lys | Pro | Leu | Leu | Ile | Arg | Gly | Val | Asn | Arg | His | Glu | His |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| His | Pro | Glu | Lys | Gly | Gln | Val | Met | Asp | Glu | Ala | Thr | Met | Arg | Arg | Asp |
| | 370 | | | | | 375 | | | | | | 380 | | | |
| Ile | Glu | Leu | Met | Lys | Gln | His | Asn | Phe | Asn | Ala | Val | Arg | Cys | Ser | His |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Tyr | Pro | Asn | His | Pro | Leu | Trp | Tyr | Thr | Leu | Cys | Asp | Arg | Tyr | Gly | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Val | Val | Asp | Glu | Ala | Asn | Ile | Glu | Thr | His | Gly | Met | Val | Pro | Met |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Ser | Arg | Leu | Ala | Asp | Asp | Pro | Arg | Trp | Leu | Pro | Ala | Met | Ser | Glu | Arg |
| | | 435 | | | | 440 | | | | | | 445 | | | |
| Val | Thr | Arg | Met | Val | Gln | Arg | Asp | Arg | Asn | His | Pro | Ser | Ile | Ile | Ile |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Trp | Ser | Leu | Gly | Asn | Glu | Ser | Gly | His | Gly | Ala | Asn | His | Asp | Ala | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Tyr | Arg | Trp | Leu | Lys | Thr | Thr | Asp | Pro | Thr | Arg | Pro | Val | Gln | Tyr | Glu |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Gly | Gly | Gly | Ala | Ser | Thr | Ala | Ala | Thr | Asp | Ile | Val | Cys | Pro | Met | Tyr |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Ala | Arg | Val | Asp | Gln | Asp | Gln | Pro | Phe | Pro | Ala | Val | Pro | Lys | Trp | Ser |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Ile | Lys | Lys | Trp | Ile | Gly | Met | Pro | Asp | Glu | Thr | Arg | Pro | Leu | Ile | Leu |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Cys | Glu | Tyr | Ala | His | Ala | Met | Gly | Asn | Ser | Phe | Gly | Gly | Phe | Ala | Ser |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Tyr | Trp | Gln | Ala | Phe | Arg | Ser | His | Pro | Arg | Leu | Gln | Gly | Gly | Phe | Val |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Trp | Asp | Trp | Val | Asp | Gln | Ala | Leu | Thr | Lys | Lys | Ala | Glu | Asp | Gly | Thr |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Val | Phe | Trp | Ala | Tyr | Gly | Gly | Asp | Phe | Gly | Asp | Lys | Pro | Asn | Asp | Arg |
| | | 595 | | | | | 600 | | | | | 605 | | | |
| Gln | Phe | Cys | Leu | Asn | Gly | Leu | Val | Phe | Pro | Asp | Arg | Thr | Pro | His | Pro |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Ala | Leu | Tyr | Glu | Ala | Gln | Arg | Ala | Gln | Gln | Phe | Phe | Thr | Phe | Thr | Leu |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Val | Ser | Thr | Ala | Pro | Leu | Val | Val | Glu | Ile | Gln | Ser | Asp | Tyr | Leu | Phe |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| Arg | His | Thr | Asp | Asn | Glu | Tyr | Leu | Arg | Trp | Ser | Val | Ala | Arg | Asp | Gly |


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<210> 8097
<211> 174
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 8097 | | | | | | | | | | | | | | | |
| Pro | Trp | Lys | Pro | Arg | Val | Phe | Arg | Gly | Lys | Gly | Lys | Leu | Thr | Tyr | Thr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Ser | Leu | Gly | Glu | Val | Met | Gln | Glu | Ser | Ile | Gln | Ala | Ala | Leu | Thr |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Val | Val | Arg | Ala | Arg | Ala | Glu | Lys | Leu | Gly | Ile | Asn | Pro | Asp | Phe | Tyr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Lys | Arg | Asp | Ile | His | Val | His | Val | Pro | Glu | Gly | Ala | Thr | Pro | Lys |

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Asp Gly Pro Ser Ala Gly Ile Ala Met Cys Thr Ala Leu Val Ser Cys | | |
| 65 | 70 | 75 |
| Leu Thr Gly Asn Pro Val Arg Ala Asp Val Ala Met Thr Gly Glu Ile | | 80 |
| | 85 | 90 |
| Thr Leu Arg Gly Gln Val Leu Pro Ile Gly Gly Leu Lys Glu Lys Leu | | 95 |
| | 100 | 105 |
| Leu Ala Ala His Arg Gly Gly Ile Lys Thr Val Leu Ile Pro Tyr Glu | | 110 |
| | 115 | 120 |
| Asn Lys Arg Asp Leu Glu Glu Ile Pro Asp Asn Val Ile Ala Asp Leu | | 125 |
| | 130 | 135 |
| Gln Ile His Pro Val Lys Arg Ile Glu Glu Val Leu Thr Leu Ala Leu | | 140 |
| 145 | 150 | 155 |
| Gln Asn Glu Pro Ser Gly Met Gln Val Val Thr Ala Lys | | 160 |
| | 165 | 170 |

<210> 8098

<211> 120

<212> PRT

<213> Enterobacter cloacae

<400> 8098

| | | |
|---|-----|-----|
| Gly His Ser Arg Thr Asp Ile Thr Ala Ala Arg Ser Arg Cys Glu Gly | | |
| 1 | 5 | 10 |
| Phe Arg Cys Asp Ile Asn Tyr Lys Glu Arg Lys Arg Thr Val Asn Lys | | 15 |
| | 20 | 25 |
| Ser Gln Leu Ile Asp Lys Ile Ala Ala Gly Ala Asp Ile Ser Lys Ala | | 30 |
| | 35 | 40 |
| Ala Ala Gly Arg Ala Leu Asp Ala Leu Ile Ala Ser Val Thr Glu Ser | | 45 |
| | 50 | 55 |
| Leu Gln Ala Gly Asp Asp Ile Ser Leu Val Gly Phe Gly Thr Phe Ala | | 60 |
| 65 | 70 | 75 |
| Val Lys Glu Arg Ala Ala Arg Thr Gly Arg Asn Pro Gln Thr Gly Lys | | 80 |
| | 85 | 90 |
| Glu Ile Thr Ile Ala Ala Ala Lys Val Pro Gly Phe Arg Ala Gly Lys | | 95 |
| | 100 | 105 |
| Ala Leu Lys Asp Ala Val Asn | | 110 |
| | 115 | 120 |

<210> 8099

<211> 167

<212> PRT

<213> Enterobacter cloacae

<400> 8099

| | | |
|---|-----|-----|
| Arg Ser Ala Lys Thr Lys Gly Arg Phe Arg Gly Phe Phe His Phe Cys | | |
| 1 | 5 | 10 |
| Asn Leu Leu Phe Val Pro Val Phe Pro Cys Gly Tyr Arg Gly Met Ala | | 15 |
| | 20 | 25 |
| Val Asn Lys Gln Gly Glu Asn Ser Met Lys Cys Gly Ile Lys Ala Leu | | 30 |
| | 35 | 40 |
| Leu Ile Thr Leu Ala Ile Ala Thr Ser Gly Met Ser Ala Gly Ala Leu | | 45 |
| | 50 | 55 |
| Ala Ala Ser Pro Ser Ser Lys Ala Gln Ala Ala Gln Thr Gln Ala Asp | | 60 |
| 65 | 70 | 75 |
| Ala Thr Ser Gln Gly Gln Val Lys Ala Asn Ala Thr Ala Ser Thr Lys | | 80 |
| | 85 | 90 |
| Ala Ile Glu Asp Glu Gly Thr Arg Val Ser Ile Asn Thr Ala Ser Ala | | 95 |
| | 100 | 105 |
| Asp Asp Leu Ala Arg Val Met Asn Gly Val Gly Leu Lys Lys Ala Gln | | 110 |
| | 115 | 120 |
| | | 125 |

Ala Ile Val Ser Tyr Arg Glu Glu Tyr Gly Pro Phe Ile Thr Leu Asp
 130 135 140
 Asp Leu Lys Gln Val Pro Gly Met Gly Ser Ala Leu Val Glu Arg Asn
 145 150 155 160
 Leu Ala His Leu Thr Leu
 165

<210> 8100

<211> 127

<212> PRT

<213> Enterobacter cloacae

<400> 8100

Lys Thr Arg Arg Val Phe Arg Asp Lys Ile Met Asn Arg Asp Tyr Val
 1 5 10 15
 Val Lys Arg Tyr Arg Thr Arg Asp Gly Lys Ile Pro Phe Glu Asp Trp
 20 25 30
 Val Ala Lys Leu Arg Arg Lys Asp Pro Glu Leu Ala Phe Arg Ile Leu
 35 40 45
 Leu Arg Ile Asp Arg Ala Glu Lys Gly Asn Phe Gly Asp Tyr Arg Tyr
 50 55 60
 Leu Arg Glu Gly Val Trp Glu Leu Lys Val Asp Ser Gly Pro Gly Tyr
 65 70 75 80
 Arg Val Tyr Phe Ala Val Gln His Arg Glu Ile Leu Leu Leu Leu Ile
 85 90 95
 Gly Gly Asp Lys Lys Ser Gln Lys Ala Asp Val Met Leu Ala Ile Asp
 100 105 110
 Tyr Trp Lys Asp His Gln Lys Asp Lys Leu His Glu Gln Lys
 115 120 125

<210> 8101

<211> 281

<212> PRT

<213> Enterobacter cloacae

<400> 8101

Pro His His Ile Ser Gly Val Ile Met Ala Arg Leu Ala Ala Phe Asp
 1 5 10 15
 Met Asp Gly Thr Leu Leu Met Pro Asp His Arg Leu Gly Glu Lys Thr
 20 25 30
 Leu Lys Thr Leu Lys Arg Leu Arg Glu Arg Glu Val Thr Leu Thr Phe
 35 40 45
 Ala Thr Gly Arg His Val Leu Glu Met Arg His Leu Leu Gly Thr Phe
 50 55 60
 Ala Leu Asp Ala Phe Leu Ile Thr Gly Asn Gly Thr Arg Ile His Ser
 65 70 75 80
 Val Asp Gly Asp Val Leu His Arg Gln Asp Leu Asn Pro Glu Val Ala
 85 90 95
 Asp Ile Val Leu His Ser Thr Trp Asp Thr Gln Ala Ser Val His Val
 100 105 110
 Phe Asn Asp Glu Gly Trp Phe Thr Gly Arg Glu Ile Pro Ala Leu Leu
 115 120 125
 His Ala His Val Tyr Ser Gly Phe Lys Tyr Gln Leu Ile Asp Leu Arg
 130 135 140
 Arg Ile Pro Ala His Lys Val Thr Lys Ile Cys Phe Cys Gly Asp His
 145 150 155 160
 Asp Asp Leu Cys Arg Leu Arg Ile Gln Leu Asn Glu Ala Leu Gly Glu
 165 170 175
 Arg Ala His Leu Thr Phe Ser Ala Val Asp Cys Leu Glu Val Leu Pro
 180 185 190
 Val Gly Cys Asn Lys Gly Ser Ala Leu Ala Val Leu Ser Asp His Leu


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<210> 8102
<211> 125
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Arg | Pro | Leu | Pro | Asn | Ser | Asp | Trp | Arg | Gly | Tyr | Met | Lys | Leu | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Thr | Val | Val | Ile | Lys | Pro | Phe | Lys | Leu | Glu | Asp | Val | Arg | Glu | Ala | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ser | Met | Gly | Ile | Gln | Gly | Leu | Thr | Val | Thr | Glu | Val | Lys | Gly | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Arg | Gln | Lys | Gly | His | Ala | Glu | Leu | Tyr | Arg | Gly | Ala | Glu | Tyr | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Asn | Phe | Leu | Pro | Lys | Val | Lys | Ile | Asp | Val | Ala | Ile | Ala | Asp | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | |
| Gln | Leu | Asp | Glu | Val | Ile | Asp | Val | Val | Ser | Lys | Ala | Ala | Tyr | Thr | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Lys | Ile | Gly | Asp | Gly | Lys | Ile | Phe | Val | Ala | Glu | Leu | Gln | Arg | Val | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Ile | Arg | Thr | Gly | Glu | Ser | Asp | Glu | Ala | Ala | Leu | | | | |
| | | 115 | | | | | 120 | | | | | 125 | | | |

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<210> 8103
<211> 373
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|------------|-----------|------------|-----------|------------|-----------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|
| Asn 1 | Ala | Arg | Ala | Leu 5 | Phe | Met | Asn | Lys | Val 10 | Val | Leu | Tyr | Cys | Arg 15 | Pro |
| Gly | Phe | Glu | Lys 20 | Glu | Cys | Ala | Ala | Glu 25 | Ile | Thr | Asp | Lys | Ala 30 | Ala | Lys |
| Arg | Glu | Val 35 | Phe | Gly | Phe | Ala | Arg 40 | Val | Lys | Glu | Asn | Ala 45 | Gly | Tyr | Val |
| Val | Phe 50 | Glu | Cys | Tyr | Gln | Pro 55 | Asp | Asp | Ala | Asp | Lys 60 | Leu | Ala | Arg | Glu |
| Leu 65 | Pro | Phe | Ser | Ser | Leu 70 | Ile | Phe | Ala | Arg | Gln 75 | Met | Phe | Val | Ala | Gly 80 |
| Glu | Leu | Leu | Lys | Asp 85 | Leu | Pro | Pro | Glu | Asp 90 | Arg | Ile | Thr | Pro 95 | Ile | Val |
| Gly | Leu | Leu | Gln 100 | Gly | Val | Val | Glu | Lys 105 | Gly | Gly | Asp | Leu | Arg 110 | Val | Glu |
| Val | Ala 115 | Asp | Thr | Asn | Glu | Ser | Lys 120 | Glu | Leu | Met | Lys | Phe 125 | Cys | Arg | Lys |
| Phe | Thr 130 | Val | Pro | Leu | Arg | Ala | Ala 135 | Leu | Arg | Asp | Ala 140 | Gly | Val | Leu | Thr |
| Asn 145 | Tyr | Glu | Thr | Pro | Lys 150 | Arg | Pro | Val | Val | His 155 | Ile | Phe | Phe | Ile | Ala 160 |

Pro Gly Cys Cys Tyr Ala Gly Tyr Ser Tyr Thr Thr Asn Asn Ser Pro
 165 170 175
 Phe Phe Met Gly Ile Pro Arg Leu Arg Phe Pro Ala Asp Ala Pro Ser
 180 185 190
 Arg Ser Thr Leu Lys Leu Glu Glu Ala Phe His Val Phe Ile Pro Ala
 195 200 205
 Asp Glu Trp Asp Glu Arg Leu Ala Asn Gly Met Tyr Ala Val Asp Leu
 210 215 220
 Gly Ala Cys Pro Gly Gly Trp Thr Tyr Gln Leu Val Lys Arg Asn Met
 225 230 235 240
 Trp Val Ser Ser Val Asp Asn Gly Pro Met Ala Gln Ser Leu Met Asp
 245 250 255
 Thr Gly Gln Val Thr Trp Leu Arg Glu Asp Gly Phe Arg Tyr Arg Pro
 260 265 270
 Asn Arg Asn Asn Ile Ser Trp Met Val Cys Asp Met Val Glu Lys Pro
 275 280 285
 Ala Lys Val Ala Ala Leu Met Ala Ser Trp Leu Val Asn Gly Trp Cys
 290 295 300
 Arg Glu Thr Ile Phe Asn Leu Lys Leu Pro Met Lys Lys Arg Tyr Glu
 305 310 315 320
 Glu Val Ser Gln Asn Leu Ala Tyr Ile Gln Gln Gln Leu Asp Glu His
 325 330 335
 Gly Ile Asn Ala Glu Ile Gln Ala Arg Gln Leu Tyr His Asp Arg Glu
 340 345 350
 Glu Val Thr Val His Ile Arg Arg Trp Trp Ala Ala Val Gly Gly Arg
 355 360 365
 Arg Asp Glu Arg
 370

<210> 8104

<211> 154

<212> PRT

<213> Enterobacter cloacae

<400> 8104

Ala Gly Ser Thr Tyr Cys Ser Trp Asn Ala Ala Lys Arg Thr Gly Ser
 1 5 10 15
 Thr Val Phe Thr Val Leu Pro Phe Leu Phe Leu Ser Ser Ala Met Leu
 20 25 30
 Cys Phe Ala Pro Phe Arg Phe Ser Val Glu Val Tyr Met Ser His His
 35 40 45
 Asp Ser Val Arg Ala Gln Leu His Ala Ile Glu Ala Leu Met Arg Gln
 50 55 60
 His Gln Leu Trp Gln Asp Asn Ala Pro Gln Pro Asp Ala Phe Ala Ser
 65 70 75 80
 Thr Gln Pro Phe Cys Leu Asp Thr Leu Asp Pro Phe Glu Trp Leu Gln
 85 90 95
 Trp Val Leu Ile Pro Arg Met His Ala Leu Leu Glu Gly Gly His Ala
 100 105 110
 Leu Pro Ala Ser Phe Ala Val Ser Pro Tyr Tyr Glu Met Ala Leu Glu
 115 120 125
 Ala Thr His Pro Ala Arg Ala Met Met Leu Val Glu Leu Glu Lys Leu
 130 135 140
 Asp Ala Leu Phe Ala Gly Asp Asp Ala
 145 150

<210> 8105

<211> 461

<212> PRT

<213> Enterobacter cloacae

<400> 8105

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Gln | Thr | Asn | Arg | Thr | Glu | Thr | Cys | Trp | Gly | Ala | Arg | Met | Met | Thr |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Thr | Gln | Ser | Ser | Pro | Ile | Val | Thr | Asp | Met | Lys | Val | Ile | Pro | Val | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Gln | Asp | Ser | Met | Leu | Leu | Asn | Ile | Gly | Gly | Ala | His | Asn | Ala | Trp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Phe | Thr | Arg | Asn | Ile | Val | Val | Leu | Thr | Asp | Asn | Ala | Gly | Asn | Thr | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Gly | Glu | Ala | Pro | Gly | Gly | Glu | Val | Ile | Tyr | Gln | Thr | Leu | Val | Asp |
| 65 | | | | | 70 | | | | .75 | | | | | | 80 |
| Ala | Ile | Pro | His | Val | Val | Gly | Gln | Glu | Val | Ala | Arg | Leu | Asn | Lys | Val |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Val | Gln | Arg | Val | His | Lys | Gly | Asn | His | Ser | Ala | Asp | Phe | Asp | Thr | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gly | Lys | Gly | Ala | Trp | Thr | Phe | Glu | Leu | Arg | Val | Asn | Ala | Val | Ala | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Glu | Ala | Ala | Leu | Leu | Asp | Leu | Leu | Gly | Lys | Ala | Leu | Asn | Val | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Val | Cys | Glu | Leu | Leu | Gly | Pro | Gly | Lys | Gln | Arg | Asp | Ala | Val | Thr | Val |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Leu | Gly | Tyr | Leu | Phe | Tyr | Val | Gly | Asp | Arg | Thr | Lys | Thr | Asp | Leu | Pro |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Tyr | Leu | Glu | Arg | Ser | Pro | Gly | Ser | His | Glu | Trp | Tyr | His | Leu | Arg | His |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gln | Glu | Ala | Leu | Ser | Gly | Glu | Ala | Val | Val | Arg | Leu | Ala | Glu | Ala | Ala |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gln | Asp | Arg | Tyr | Gly | Phe | Lys | Asp | Phe | Lys | Leu | Lys | Gly | Gly | Val | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Pro | Gly | Glu | Gln | Glu | Ile | Asp | Ser | Val | Arg | Ala | Leu | Lys | Lys | Arg | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Pro | Glu | Ala | Arg | Ile | Thr | Val | Asp | Pro | Asn | Gly | Ala | Trp | Leu | Leu | Asp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Glu | Ala | Ile | Ala | Leu | Cys | Lys | Gly | Leu | Gly | Asp | Val | Leu | Thr | Tyr | Ala |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Glu | Asp | Pro | Cys | Gly | Ala | Glu | Gln | Gly | Phe | Ser | Gly | Arg | Glu | Val | Met |
| | 275 | | | | | | 280 | | | | | 285 | | | |
| Ala | Glu | Phe | Arg | Arg | Ala | Thr | Gly | Leu | Pro | Val | Ala | Thr | Asn | Met | Ile |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Thr | Asn | Trp | Arg | Glu | Met | Gly | His | Ala | Val | Met | Leu | Asn | Ala | Val |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Ile | Pro | Leu | Ala | Asp | Pro | His | Phe | Trp | Thr | Leu | Ser | Gly | Ala | Val |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Arg | Val | Ala | Gln | Leu | Cys | Asp | Asp | Trp | Gly | Leu | Thr | Trp | Gly | Cys | His |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Ser | Asn | Asn | His | Phe | Asp | Ile | Ser | Leu | Ala | Met | Phe | Thr | His | Val | Gly |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Ala | Ala | Ala | Pro | Gly | Asn | Pro | Thr | Ala | Ile | Asp | Thr | His | Trp | Ile | Trp |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gln | Glu | Gly | Glu | Ala | Arg | Leu | Thr | Lys | Asn | Pro | Leu | Glu | Ile | Lys | Asn |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Thr | Ile | Ala | Val | Pro | Asp | Ala | Pro | Gly | Leu | Gly | Val | Glu | Leu | Asp |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Trp | Asp | Gln | Ile | His | Lys | Ala | His | Glu | Ala | Tyr | Lys | Lys | Leu | Pro | Gly |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Gly | Ala | Arg | Asn | Asp | Ala | Gly | Pro | Met | Gln | Tyr | Leu | Ile | Pro | Gly | Trp |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Thr | Phe | Asp | Arg | Lys | Arg | Pro | Val | Phe | Gly | Arg | His | | | | |
| | 450 | | | | | 455 | | | | | 460 | | | | |

<210> 8106

<211> 450
 <212> PRT
 <213> Enterobacter cloacae

<400> 8106

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Asp | Arg | Thr | Met | Ser | Thr | Phe | Ser | Thr | Pro | Val | Val | Thr | Ser | Met |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | |
| Gln | Ile | Ile | Pro | Val | Ala | Gly | His | Asp | Ser | Met | Leu | Met | Asn | Leu | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Ala | His | Ala | Pro | Phe | Phe | Thr | Arg | Asn | Ile | Val | Val | Ile | Lys | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Asn | Ser | Gly | His | Thr | Gly | Val | Gly | Glu | Ile | Pro | Gly | Gly | Glu | Lys | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Lys | Thr | Leu | Glu | Asp | Ala | Ile | Pro | Leu | Val | Val | Gly | Lys | Thr | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Glu | Tyr | Lys | Asn | Val | Leu | Thr | Arg | Val | Arg | Thr | Thr | Phe | Ala | Asp |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Asp | Ala | Gly | Gly | Arg | Gly | Leu | Gln | Thr | Phe | Asp | Leu | Arg | Thr | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Ile | His | Val | Val | Thr | Gly | Ile | Glu | Ala | Ala | Met | Leu | Asp | Leu | Leu | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Gln | His | Leu | Gly | Val | Asn | Val | Ala | Ser | Leu | Leu | Gly | Asp | Gly | Gln | Gln |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Arg | Ser | Glu | Val | Glu | Met | Leu | Gly | Tyr | Leu | Phe | Phe | Ile | Gly | Asn | Arg |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Lys | Leu | Thr | Pro | Leu | Pro | Tyr | Gln | Ser | Gln | Pro | Asp | Glu | Lys | Cys | Asp |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Trp | Tyr | Arg | Val | Arg | His | Asp | Glu | Ala | Met | Thr | Pro | Asp | Ala | Val | Val |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Arg | Leu | Ala | Glu | Ala | Ala | Tyr | Glu | Lys | Tyr | Gly | Phe | Asn | Asp | Phe | Lys |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Leu | Lys | Gly | Gly | Val | Leu | Ala | Gly | Glu | Glu | Glu | Ala | Glu | Ala | Ile | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Leu | Ala | Lys | Arg | Phe | Pro | Gln | Ala | Arg | Val | Thr | Leu | Asp | Pro | Asn |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gly | Ala | Trp | Ser | Leu | Asp | Glu | Ala | Ile | Lys | Ile | Gly | Lys | Gln | Leu | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Val | Leu | Ala | Tyr | Ala | Glu | Asp | Pro | Cys | Gly | Ala | Glu | Gln | Gly | Phe |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Gly | Arg | Glu | Val | Met | Ala | Glu | Phe | Arg | Arg | Ala | Thr | Gly | Leu | Pro |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Thr | Ala | Thr | Asn | Met | Ile | Ala | Thr | Asp | Trp | Arg | Gln | Met | Gly | His | Thr |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Ser | Leu | Gln | Ser | Val | Asp | Ile | Pro | Leu | Ala | Asp | Pro | His | Phe | Trp |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Met | Gln | Gly | Ser | Val | Arg | Val | Ala | Gln | Met | Cys | His | Glu | Phe | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Leu | Thr | Trp | Gly | Ser | His | Ser | Asn | Asn | His | Phe | Asp | Ile | Ser | Leu | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Phe | Thr | His | Val | Ala | Ala | Ala | Ala | Pro | Gly | Asn | Ile | Thr | Ala | Ile |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Asp | Thr | His | Trp | Ile | Trp | Gln | Glu | Gly | Asn | Gln | Arg | Leu | Thr | Lys | Gln |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Pro | Phe | Glu | Ile | Lys | Gly | Gly | Met | Val | Gln | Val | Pro | Ala | Thr | Pro | Gly |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Leu | Gly | Val | Glu | Leu | Asp | Met | Asp | Gln | Val | Met | Lys | Ala | His | Glu | Leu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Tyr | Gln | Lys | His | Gly | Leu | Gly | Ala | Arg | Asp | Asp | Ala | Leu | Ala | Met | Gln |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Tyr | Leu | Ile | Pro | Glu | Trp | Arg | Phe | Asp | Asn | Lys | Arg | Pro | Cys | Met | Val |
| | | 435 | | | | | 440 | | | | | 445 | | | |

Arg

450

<210> 8107

<211> 551

<212> PRT

<213> Enterobacter cloacae

<400> 8107

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Leu | Arg | Phe | Ser | Met | Thr | Thr | Asn | Tyr | Ile | Phe | Val | Thr | Gly | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Val | Ser | Ser | Leu | Gly | Lys | Gly | Ile | Ala | Ala | Ala | Ser | Leu | Ala | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Leu | Glu | Ala | Arg | Gly | Leu | Asn | Val | Thr | Met | Met | Lys | Leu | Asp | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Tyr | Ile | Asn | Val | Asp | Pro | Gly | Thr | Met | Ser | Pro | Thr | Gln | His | Gly | Glu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Phe | Val | Thr | Glu | Asp | Gly | Ala | Glu | Thr | Asp | Leu | Asp | Leu | Gly | His |
| 65 | | | | 70 | | | | | | 75 | | | | | 80 |
| Tyr | Glu | Arg | Phe | Ile | Arg | Thr | Lys | Met | Thr | Arg | Arg | Asn | Asn | Phe | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Thr | Gly | Arg | Ile | Tyr | Ser | Asp | Val | Leu | Arg | Lys | Glu | Arg | Arg | Gly | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Tyr | Leu | Gly | Ala | Thr | Val | Gln | Val | Ile | Pro | His | Ile | Thr | Asn | Ala | Ile |
| | 115 | | | | | 120 | | | | | | 125 | | | |
| Lys | Glu | Arg | Val | Leu | Ala | Gly | Gly | Glu | Gly | His | Asp | Val | Val | Leu | Val |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Ile | Gly | Gly | Thr | Val | Gly | Asp | Ile | Glu | Ser | Leu | Pro | Phe | Leu | Glu |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Ala | Ile | Arg | Gln | Leu | Ala | Val | Asp | Ile | Gly | Arg | Glu | His | Ala | Leu | Phe |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Met | His | Leu | Thr | Leu | Val | Pro | Tyr | Met | Ala | Ala | Ala | Gly | Glu | Val | Lys |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Thr | Lys | Pro | Thr | Gln | His | Ser | Val | Lys | Glu | Leu | Leu | Ser | Ile | Gly | Ile |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Gln | Pro | Asp | Ile | Leu | Val | Cys | Arg | Ser | Asp | Arg | Ala | Ile | Pro | Ala | Asn |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Glu | Arg | Ala | Lys | Ile | Ala | Leu | Phe | Cys | Asn | Val | Pro | Glu | Lys | Ala | Val |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Ile | Ser | Met | Lys | Asp | Val | Asp | Ser | Ile | Tyr | Lys | Ile | Pro | Gly | Leu | Leu |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Lys | Ser | Gln | Gly | Leu | Asp | Asp | Tyr | Ile | Cys | Lys | Arg | Phe | Ser | Leu | Asn |
| | | 260 | | | | | 265 | | | | | 270 | | | |
| Cys | Pro | Glu | Ala | Asn | Leu | Ser | Glu | Trp | Glu | Gln | Val | Ile | Tyr | Glu | Glu |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Ala | Asn | Pro | Gly | Gly | Glu | Val | Thr | Ile | Gly | Met | Val | Gly | Lys | Tyr | Ile |
| 290 | | | | | | 295 | | | | | 300 | | | | |
| Glu | Leu | Pro | Asp | Ala | Tyr | Lys | Ser | Val | Ile | Glu | Ala | Leu | Lys | His | Gly |
| 305 | | | | 310 | | | | | | 315 | | | | | 320 |
| Gly | Leu | Lys | Asn | Arg | Val | Ser | Val | Asn | Ile | Lys | Leu | Ile | Asp | Ser | Gln |
| | | | 325 | | | | | 330 | | | | | 335 | | |
| Asp | Val | Glu | Thr | Arg | Gly | Val | Glu | Ile | Leu | Lys | Asp | Leu | Asp | Ala | Ile |
| | | 340 | | | | | 345 | | | | | | 350 | | |
| Leu | Ile | Pro | Gly | Gly | Phe | Gly | Tyr | Arg | Gly | Val | Glu | Gly | Lys | Ile | Ala |
| | 355 | | | | | 360 | | | | | 365 | | | | |
| Thr | Ala | Arg | Tyr | Ala | Arg | Glu | Asn | Asn | Ile | Pro | Tyr | Leu | Gly | Ile | Cys |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Gly | Met | Gln | Val | Ala | Leu | Ile | Glu | Phe | Ala | Arg | Asn | Val | Ala | Gly |
| 385 | | | | 390 | | | | | | 395 | | | | | 400 |
| Met | Glu | Asn | Ala | Asn | Ser | Thr | Glu | Phe | Val | Pro | Asp | Cys | Lys | Tyr | Pro |
| | | | 405 | | | | | | 410 | | | | | 415 | |

Val Val Ala Leu Ile Thr Glu Trp Arg Asp Glu Asp Gly Asn Val Glu
 420 425 430
 Val Arg Thr Glu Lys Ser Asp Leu Gly Gly Thr Met Arg Leu Gly Ala
 435 440 445
 Gln Ala Cys Gln Leu Ser Asp Asp Ser Val Val Arg Lys Leu Tyr Gly
 450 455 460
 Glu Pro Val Ile Thr Glu Arg His Arg His Arg Tyr Glu Val Asn Asn
 465 470 475 480
 Met Leu Leu Lys Gln Ile Glu Ala Ala Gly Leu Arg Val Ala Gly Arg
 485 490 495
 Ser Gly Asp Asp Gln Leu Val Glu Ile Ile Glu Val Pro Asn His Pro
 500 505 510
 Trp Phe Val Ala Cys Gln Phe His Pro Glu Phe Thr Ser Thr Pro Arg
 515 520 525
 Asp Gly His Pro Leu Phe Ala Gly Phe Val Lys Ala Ala Ser Glu Tyr
 530 535 540
 Gln Lys Arg Gln Ala Lys
 545 550

<210> 8108

<211> 450

<212> PRT

<213> Enterobacter cloacae

<220>

<221> UNSURE

<222> (421)

<400> 8108

Phe Ser Gln Leu Lys Ile Tyr Val Val Lys Ile Phe Ile Asn Asn Gln
 1 5 10 15
 Gly Asp Lys Lys Met Met Gln Met Phe Ser Gly Ala Ser Ser Gly Gly
 20 25 30
 Trp Phe Glu Lys Ala Gln Arg Phe Gly Lys Ser Phe Met Leu Pro Ile
 35 40 45
 Ala Ile Leu Pro Ala Ala Gly Leu Leu Leu Gly Ile Gly Gly Ala Leu
 50 55 60
 Ser Asn Pro Asn Thr Leu Thr Ala Tyr Pro Phe Leu Asp Val Gly Trp
 65 70 75 80
 Leu Gln Ala Ile Phe Thr Ile Met Ser Ser Ala Gly Ser Ile Val Phe
 85 90 95
 Ala Asn Leu Ser Val Leu Phe Ala Val Gly Val Ala Val Gly Leu Ala
 100 105 110
 Lys Asn Asp Lys Gly Thr Ala Gly Leu Ala Ala Leu Leu Ala Tyr Leu
 115 120 125
 Val Met Asn Ala Thr Ile Asn Ala Leu Leu Ile Leu Thr Gly Lys Leu
 130 135 140
 Ala His Glu Asn Pro Gly Ala Val Gly Gln Gly Met Thr Leu Gly Ile
 145 150 155 160
 Gln Thr Leu Glu Thr Gly Val Phe Gly Gly Val Val Ile Gly Leu Val
 165 170 175
 Thr Cys Ala Leu His His Arg Phe Asn Lys Ile Ala Leu Pro Gln Phe
 180 185 190
 Leu Gly Phe Phe Gly Gly Ser Arg Phe Val Pro Ile Ile Ser Ser Leu
 195 200 205
 Ala Ala Ile Leu Val Gly Ala Leu Met Thr Val Val Trp Pro His Phe
 210 215 220
 Gln Lys Leu Ile Phe Gly Leu Gly Gly Leu Val Asp Ala Thr Gly Tyr
 225 230 235 240
 Leu Gly Thr Leu Leu Tyr Gly Phe Ile Leu Arg Met Leu Gly Pro Phe
 245 250 255

Gly Leu His His Ile Phe Tyr Leu Pro Phe Trp Thr Thr Ala Leu Gly
 260 265 270
 Gly Ser Glu Ile Val Asn Gly His Leu Val Glu Gly Thr Gln Arg Ile
 275 280 285
 Phe Phe Ala Gln Leu Ala Asp Pro Asn Thr Gln His Phe Tyr Glu Gly
 290 295 300
 Thr Ser Arg Phe Met Ser Gly Arg Phe Ile Thr Met Met Phe Gly Leu
 305 310 315 320
 Leu Gly Ala Cys Leu Ala Met Tyr His Thr Ala Arg Pro Glu Asn Lys
 325 330 335
 Lys Arg Val Ala Gly Leu Leu Leu Ser Ala Ala Leu Thr Ser Phe Leu
 340 345 350
 Thr Gly Ile Thr Glu Pro Ile Glu Phe Ser Phe Leu Phe Ile Ala Pro
 355 360 365
 Val Leu Tyr Val Ile His Ala Leu Phe Asp Gly Leu Ala Phe Met Leu
 370 375 380
 Ala His Ile Leu His Ile Thr Ile Gly Gln Thr Phe Ser Gly Gly Phe
 385 390 395 400
 Ile Asp Phe Val Leu Phe Gly Ile Leu Gln Gly Glu Ala Lys Thr Asn
 405 410 415
 Trp Met Phe Val Xaa Leu Val Gly Val Pro Trp Phe Phe Leu Tyr Tyr
 420 425 430
 Cys Thr Phe Arg Tyr Leu Ile Lys Arg Phe Asp Phe Ala Thr Pro Gly
 435 440 445
 Pro
 450

<210> 8109

<211> 463

<212> PRT

<213> Enterobacter cloacae

<400> 8109

Thr Arg Arg Lys Leu Cys Phe Arg Ser Ala Thr Met Ser Thr Leu Ser
 1 5 10 15
 His Ala Ala Ser Ser Ala Glu Lys Arg Thr Asn Ala Arg Tyr Trp Ile
 20 25 30
 Val Val Met Leu Phe Ile Val Thr Ser Phe Asn Tyr Gly Asp Arg Ala
 35 40 45
 Thr Leu Ser Ile Ala Gly Ser Glu Met Ala Lys Asp Ile Gly Leu Asp
 50 55 60
 Pro Val Gly Met Gly Tyr Val Phe Ser Ala Phe Ser Trp Ala Tyr Val
 65 70 75 80
 Ile Gly Gln Ile Pro Gly Gly Trp Leu Leu Asp Arg Phe Gly Ser Lys
 85 90 95
 Arg Val Tyr Phe Trp Ser Ile Phe Ile Trp Ser Met Phe Thr Leu Leu
 100 105 110
 Gln Gly Phe Val Asp Ile Phe Ser Gly Phe Gly Ile Ile Ala Leu
 115 120 125
 Phe Thr Leu Arg Phe Leu Val Gly Leu Ala Glu Ala Pro Ser Phe Pro
 130 135 140
 Gly Asn Ser Arg Ile Val Ala Ala Trp Phe Pro Ala Gln Glu Arg Gly
 145 150 155 160
 Thr Ala Val Ala Ile Phe Asn Ser Ala Gln Tyr Phe Ala Thr Val Ile
 165 170 175
 Phe Ala Pro Ile Met Gly Trp Leu Thr His Glu Val Gly Trp Ser His
 180 185 190
 Val Phe Phe Phe Met Gly Gly Leu Gly Ile Val Ile Ser Phe Ile Trp
 195 200 205
 Leu Lys Val Ile His Glu Pro Asn Gln His Pro Gly Val Asn Lys Lys
 210 215 220

Glu Leu Asp Tyr Ile Ala Glu Gly Gly Ala Leu Ile Asn Met Asp Gln
 225 230 235 240
 Lys Thr Gln Lys Ala Lys Val Pro Phe Ser Gln Lys Trp Gly Gln Ile
 245 250 255
 Lys Gln Leu Val Gly Ser Arg Met Met Ile Gly Ile Tyr Leu Gly Gln
 260 265 270
 Tyr Cys Ile Asn Ala Leu Thr Tyr Phe Phe Ile Thr Trp Phe Pro Val
 275 280 285
 Tyr Leu Val Gln Ala Arg Gly Met Ser Ile Leu Lys Ala Gly Phe Val
 290 295 300
 Ala Ser Val Pro Ala Ile Cys Gly Phe Val Gly Gly Val Leu Gly Gly
 305 310 315 320
 Val Ile Ser Asp Trp Leu Met Arg Arg Thr Gly Ser Leu Asn Ile Ala
 325 330 335
 Arg Lys Thr Pro Ile Val Leu Gly Met Leu Leu Ser Met Thr Met Val
 340 345 350
 Phe Cys Asn Tyr Val Ser Ala Glu Trp Met Ile Ile Gly Phe Met Ala
 355 360 365
 Met Ala Phe Phe Gly Lys Gly Ile Gly Ala Leu Gly Trp Ala Val Met
 370 375 380
 Ala Asp Thr Ala Pro Lys Glu Ile Ser Gly Leu Ser Gly Gly Leu Phe
 385 390 395 400
 Asn Met Phe Gly Asn Ile Ser Gly Ile Val Thr Pro Ile Ala Ile Gly
 405 410 415
 Tyr Ile Val Gly Thr Thr Gly Ser Phe Asn Gly Ala Leu Ile Tyr Val
 420 425 430
 Gly Val His Ala Leu Val Ala Val Leu Ser Tyr Leu Val Leu Val Gly
 435 440 445
 Asp Ile Lys Arg Ile Glu Leu Lys Pro Val Gly Glu Arg Gly
 450 455 460

<210> 8110

<211> 522

<212> PRT

<213> Enterobacter cloacae

<400> 8110

Leu Thr Asn Gly Phe Thr Val Leu Gln Val His Thr Val Leu Ala Gly
 1 5 10 15
 Asp Gly Gln Arg Phe Asp Asn Ala Gly Pro Gly Ile Phe Lys Leu Ser
 20 25 30
 Leu Gln Ile Val Ile Ala Met His His Lys Glu Asn Ala Gln Gln Gln
 35 40 45
 Thr Asp Glu Asn Gly Arg Ser Glu Asp Gln Asn His His Ala Arg Ala
 50 55 60
 Gln Ala Val Val Gly His Gly Val Pro Leu Trp Asp Asn Gln Ala Asn
 65 70 75 80
 Tyr Val Tyr Leu Arg Thr Ile Ser Ala Met Ala Gln Phe Tyr Ser Ala
 85 90 95
 Lys Arg Arg Val Thr Thr Arg Gln Ile Ile Thr Val Glu Ala Ser Asp
 100 105 110
 Leu Asp Pro Phe Gly Gln Gly Val Ala Arg His Lys Gly Lys Thr Leu
 115 120 125
 Phe Ile Thr Gly Leu Leu Pro Gly Glu Arg Ala Asp Ile Thr Leu Thr
 130 135 140
 Glu Asp Lys Arg Gln Tyr Ala Arg Gly Gln Val Lys Arg Arg Leu Asn
 145 150 155 160
 Asp Ser Pro Glu Arg Val Thr Pro Arg Cys Pro His Phe Gly Val Cys
 165 170 175
 Gly Gly Cys Gln Gln Gln His Ala Ser Thr Glu Leu Gln Gln Lys Ser
 180 185 190

Lys Ser Ser Ala Leu Ala Arg Leu Val Gly His Asp Val Asn Asp Ile
 195 200 205
 Ile Ala Asp Arg Pro Trp Gly Tyr Arg Arg Arg Ala Arg Leu Ser Leu
 210 215 220
 Ser Tyr Gln Pro Lys Thr Glu Arg Leu Glu Met Gly Phe Arg Lys Ala
 225 230 235 240
 Gly Ser Ser Asp Ile Val Ser Val Thr Gln Cys Pro Val Leu Val Pro
 245 250 255
 His Leu Glu Ala Leu Leu Pro Asp Val His His Cys Leu Ala Ser Leu
 260 265 270
 Asp Gly Val Arg Ser Leu Gly His Val Glu Leu Val Leu Ala Asn Ser
 275 280 285
 Gly Pro Leu Met Val Leu Arg His Thr Ala Pro Leu Ser Lys Ala Asp
 290 295 300
 Arg Glu Lys Leu Glu Arg Phe Ser His Ser His Glu Leu Ala Leu Phe
 305 310 315 320
 Leu Ala Pro Gln Ser Glu Ile Leu Glu Gln Val Ser Gly Glu Ala Pro
 325 330 335
 Trp Tyr Ala Ser Asp Gly Leu Arg Leu Thr Phe Ser Pro Arg Asp Phe
 340 345 350
 Ile Gln Val Asn Asp Gly Val Asn Gln Gln Met Val Ala Asn Ala Leu
 355 360 365
 Glu Trp Leu Asp Val Gln Pro Thr Asp Arg Val Leu Asp Leu Phe Cys
 370 375 380
 Gly Met Gly Asn Phe Thr Leu Pro Leu Ala Arg Arg Ala Ala Ser Val
 385 390 395 400
 Val Gly Val Glu Gly Val Glu Ala Leu Val Ala Lys Gly Gln Glu Asn
 405 410 415
 Ala Gln Gln Asn Gly Leu Gln Asn Val Thr Phe Phe His Gln Asn Leu
 420 425 430
 Glu Asp Asp Val Thr Gln Gln Pro Trp Ala Lys Gln Gly Phe Asp Lys
 435 440 445
 Ile Leu Leu Asp Pro Ala Arg Ala Gly Ala Pro Gly Val Met Gln His
 450 455 460
 Ile Ile Lys Leu Ala Pro Glu Arg Val Val Tyr Val Ser Cys Asn Pro
 465 470 475 480
 Ala Thr Leu Ala Arg Asp Ser Glu Ala Leu Leu Ser Gly Gly Tyr Gln
 485 490 495
 Ile Arg Arg Leu Ala Met Leu Asp Met Phe Pro His Thr Gly His Leu
 500 505 510
 Glu Ser Met Val Leu Phe Glu His Ile
 515 520

<210> 8111

<211> 760

<212> PRT

<213> Enterobacter cloacae

<400> 8111

Val Trp Leu Val Asp Phe Asp Arg Pro Leu Ser Leu Lys Glu Arg Thr
 1 5 10 15
 Met Val Ala Val Arg Ser Ala His Leu Asn Lys Ala Gly Glu Phe Asp
 20 25 30
 Pro Gln Lys Trp Ile Ala Ser Leu Gly Ile Ser Ser Gln Gln Ser Cys
 35 40 45
 Glu Arg Leu Thr Glu Thr Trp Ala Tyr Cys Leu Arg Thr Thr Gln Gly
 50 55 60
 His Pro Asp Ala Glu Leu Leu Trp Arg Gly Val Glu Met Val Glu
 65 70 75 80
 Ile Leu Ser Met Leu Asn Met Asp Ile Glu Thr Leu Gln Ala Ala Leu
 85 90 95

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Phe | Pro | Leu | Ala | Asp | Ala | Asp | Val | Val | Thr | Glu | Asp | Val | Leu | Arg |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Ser | Val | Gly | Gln | Ser | Val | Val | Ala | Leu | Ile | His | Gly | Val | Arg | Asp |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Met | Ala | Ala | Ile | Arg | Gln | Leu | Lys | Ala | Ala | Gln | Thr | Asp | Ser | Val | Ser |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ser | Glu | Gln | Val | Asp | Asn | Val | Arg | Arg | Met | Leu | Leu | Ala | Met | Val | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Asp | Phe | Arg | Cys | Val | Val | Ile | Lys | Leu | Ala | Glu | Arg | Val | Ala | His | Leu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Arg | Glu | Val | Lys | Asp | Ala | Pro | Glu | Asp | Glu | Arg | Val | Leu | Ala | Ala | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Glu | Cys | Thr | Asn | Ile | Tyr | Ala | Pro | Leu | Ala | Asn | Arg | Leu | Gly | Ile | Gly |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Gln | Leu | Lys | Trp | Glu | Leu | Glu | Asp | Tyr | Cys | Phe | Arg | Tyr | Leu | His | Pro |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Glu | Tyr | Lys | Arg | Ile | Ala | Lys | Leu | Leu | His | Glu | Arg | Arg | Ile | Asp |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Glu | His | Tyr | Ile | Glu | Glu | Phe | Val | Ser | Gly | Leu | Arg | Gln | Ser | Met |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Lys | Glu | Glu | Asn | Val | Arg | Ala | Glu | Val | Tyr | Gly | Arg | Pro | Lys | His | Ile |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Tyr | Ser | Ile | Trp | Arg | Lys | Met | Gln | Lys | Lys | His | Leu | Ala | Phe | Asp | Glu |
| | 275 | | | | | 280 | | | | | | 285 | | | |
| Leu | Phe | Asp | Val | Arg | Ala | Val | Arg | Ile | Val | Ala | Glu | Arg | Leu | Gln | Asp |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Cys | Tyr | Ala | Ala | Leu | Gly | Ile | Val | His | Thr | His | Phe | Arg | His | Leu | Pro |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Glu | Phe | Asp | Asp | Tyr | Val | Ala | Asn | Pro | Lys | Pro | Asn | Gly | Tyr | Gln |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Ser | Ile | His | Thr | Val | Val | Leu | Gly | Pro | Gly | Gly | Lys | Thr | Val | Glu | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gln | Ile | Arg | Thr | Lys | Gln | Met | His | Glu | Asp | Ala | Glu | Leu | Gly | Val | Ala |
| | | | 355 | | | | 360 | | | | | 365 | | | |
| Ala | His | Trp | Lys | Tyr | Lys | Glu | Gly | Thr | Ser | Gly | Gly | Gly | Arg | Ser | Gly |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| His | Glu | Asp | Arg | Ile | Ala | Trp | Leu | Arg | Lys | Leu | Ile | Ala | Trp | Gln | Glu |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Glu | Met | Ala | Asp | Ser | Gly | Glu | Met | Leu | Asp | Glu | Val | Arg | Ser | Gln | Val |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Phe | Asp | Asp | Arg | Val | Tyr | Val | Phe | Thr | Pro | Lys | Gly | Asp | Val | Val | Asp |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Pro | Ala | Gly | Ser | Thr | Pro | Leu | Asp | Phe | Ala | Tyr | His | Ile | His | Ser |
| | | | 435 | | | | 440 | | | | | 445 | | | |
| Asp | Val | Gly | His | Arg | Cys | Ile | Gly | Ala | Lys | Ile | Gly | Gly | Arg | Ile | Val |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Pro | Phe | Thr | Tyr | Gln | Leu | Gln | Met | Gly | Asp | Gln | Ile | Glu | Ile | Ile | Thr |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Gln | Lys | Gln | Pro | Asn | Pro | Ser | Arg | Asp | Trp | Leu | Asn | Pro | Asn | Leu | Gly |
| | | | 485 | | | | | | 490 | | | | | 495 | |
| Tyr | Val | Thr | Thr | Ser | Arg | Gly | Arg | Ser | Lys | Ile | His | Ala | Trp | Phe | Arg |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Lys | Gln | Asp | Arg | Asp | Lys | Asn | Ile | Leu | Ala | Gly | Arg | Gln | Ile | Leu | Asp |
| | | 515 | | | | | 520 | | | | | 525 | | | |
| Asp | Glu | Leu | Glu | His | Ile | Gly | Ile | Ser | Leu | Lys | Glu | Ala | Glu | Lys | Phe |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Leu | Leu | Pro | Arg | Tyr | Asn | Phe | Asn | Glu | Leu | Asp | Glu | Leu | Leu | Ala | Ala |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Ile | Gly | Gly | Gly | Asp | Ile | Arg | Leu | Asn | Gln | Met | Val | Asn | Phe | Leu | Gln |
| | | | 565 | | | | | | 570 | | | | | 575 | |
| Ala | Gln | Phe | Asn | Lys | Pro | Ser | Ala | Ala | Glu | Gln | Asp | Ala | Ala | Ala | Leu |


```
<210> 8112
<211> 457
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|-----|---------|
| <400> 8112 | | | | | | | | | | | | | | | |
| Asn 1 | Gly | Asn | Ala | Tyr 5 | Leu | Trp | Tyr | Ala | Leu 10 | Phe | Val | Trp | Ser 15 | Phe | Ser |
| Leu | Thr | Cys | Thr 20 | Glu | Glu | Asn | Leu | Met 25 | Ser | Lys | Ile | Val | Lys 30 | Val | Ile |
| Gly | Arg | Glu 35 | Ile | Ile | Asp | Ser | Arg 40 | Gly | Asn | Pro | Thr | Val 45 | Glu | Ala | Glu |
| Val | His 50 | Leu | Glu | Gly | Gly | Phe 55 | Val | Gly | Met | Ala | Ala 60 | Ala | Pro | Ser | Gly |
| Ala 65 | Ser | Thr | Gly | Ser | Arg 70 | Glu | Ala | Leu | Glu | Leu 75 | Arg | Asp | Gly | Asp | Lys 80 |
| Ser | Arg | Phe | Met | Gly 85 | Lys | Gly | Val | Leu | Lys 90 | Ala | Val | Gly | Ala 95 | Val | Asn |
| Gly | Pro | Ile | Ala 100 | Gln | Ala | Ile | Val | Gly 105 | Lys | Asp | Ala | Lys | Asp 110 | Gln | Ala |
| Gly | Ile | Asp 115 | Lys | Ile | Met | Ile | Asp 120 | Leu | Asp | Gly | Thr | Glu 125 | Asn | Lys | Ser |
| Asn | Phe 130 | Gly | Ala | Asn | Ala | Ile 135 | Leu | Ala | Val | Ser | Leu 140 | Ala | Asn | Ala | Lys |
| Ala 145 | Ala | Ala | Ala | Ala | Lys 150 | Gly | Met | Pro | Leu | Phe 155 | Glu | His | Ile | Ala | Glu 160 |
| Leu | Asn | Gly | Thr | Pro 165 | Gly | Lys | Tyr | Ser | Met | Pro | Val | Pro | Met 175 | Met | Asn |
| Ile | Ile | Asn | Gly 180 | Gly | Glu | His | Ala | Asp 185 | Asn | Asn | Val | Asp | Ile 190 | Gln | Glu |
| Phe | Met 195 | Ile | Gln | Pro | Val | Gly | Ala 200 | Lys | Thr | Leu | Lys | Glu 205 | Ala | Val | Arg |
| Met | Gly 210 | Ser | Glu | Val | Phe | His 215 | Asn | Leu | Ala | Lys | Val | Leu 220 | Lys | Ala | Lys |
| Gly 225 | Met | Asn | Thr | Ala | Val 230 | Gly | Asp | Glu | Gly | Gly 235 | Tyr | Ala | Pro | Asn | Leu 240 |
| Gly | Ser | Asn | Ala | Glu | Ala | Leu | Ala | Val | Ile | Ala | Glu | Ala | Val | Lys | Ala |


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<210> 8113
<211> 312
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> | 8113 | | | | | | | | | | | | | | |
| His | Leu | Ser | Gln | Ile | Thr | Met | Ser | Lys | Arg | Leu | Pro | Pro | Leu | Asn | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Arg | Val | Phe | Asp | Ala | Ala | Ala | Arg | His | Leu | Ser | Phe | Thr | Arg | Ala |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ala | Asp | Glu | Leu | Phe | Val | Thr | Gln | Ala | Ala | Val | Ser | His | Gln | Ile | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Leu | Glu | Asp | Phe | Leu | Gly | Leu | Lys | Leu | Phe | Arg | Arg | Arg | Asn | Arg |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Ser | Leu | Leu | Leu | Thr | Glu | Glu | Gly | Gln | Ser | Tyr | Phe | Gln | Asp | Ile | Lys |
| 65 | | | | 70 | | | | | | 75 | | | | 80 | |
| Glu | Ile | Phe | Ser | Gln | Leu | Thr | Glu | Ala | Thr | Arg | Lys | Leu | Gln | Ala | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Ala | Lys | Gly | Ala | Leu | Thr | Val | Ser | Leu | Leu | Pro | Ser | Phe | Ala | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Gln | Trp | Leu | Val | Pro | Arg | Leu | Ser | Ser | Phe | Asn | Ser | Thr | Tyr | Pro | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ile | Asp | Val | Arg | Ile | Gln | Ala | Val | Asp | Arg | Gln | Glu | Asp | Lys | Leu | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Asp | Asp | Val | Asp | Val | Ala | Ile | Phe | Tyr | Gly | Arg | Gly | Asn | Trp | Pro | Gly |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Leu | Arg | Val | Glu | Lys | Leu | Tyr | Ala | Glu | Tyr | Leu | Leu | Pro | Val | Cys | Ser |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Pro | Leu | Leu | Leu | Thr | Gly | Asp | Lys | Ala | Leu | Lys | Thr | Pro | Ala | Asp | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Gln | His | Thr | Leu | Leu | His | Asp | Ala | Ser | Arg | Arg | Asp | Trp | Gln | Thr |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Thr | Arg | Gln | Leu | Gly | Leu | Asn | His | Ile | Asn | Val | Gln | Gln | Gly | Pro |

| | | | | |
|---------------------|---------------------|-----------------------------|-----|-----|
| 210 | | 215 | | 220 |
| Ile Phe Ser His Ser | Ala Met Val Leu Gln | Ala Ala Ile His Gly Gln | | |
| 225 | 230 | 235 | 240 | |
| Gly Val Ala Leu Ala | Asn Asn Val Met | Ala Gln Ser Glu Ile Glu Ala | | |
| | 245 | 250 | 255 | |
| Gly Arg Leu Val Cys | Pro Phe Asn Asp | Val Leu Val Ser Lys Asn Ala | | |
| | 260 | 265 | 270 | |
| Phe Tyr Leu Val Cys | His Asp Ser Gln | Ala Glu Leu Gly Lys Ile Ala | | |
| | 275 | 280 | 285 | |
| Ala Phe Arg Gln Trp | Ile Leu Ala Lys | Ala Ala Ser Glu Gln Glu Lys | | |
| | 290 | 295 | 300 | |
| Phe Arg Phe Arg Tyr | Glu Gln | | | |
| 305 | 310 | | | |

<210> 8114

<211> 145

<212> PRT

<213> Enterobacter cloacae

<400> 8114

| | | |
|---------------------|-----------------|-----------------------------|
| Arg Leu Cys Ala Gly | His Ala Ser Ile | Gln Asp Leu Asn Met Thr Ser |
| 1 | 5 | 10 |
| Arg Phe Met Leu Ile | Phe Ala Ala Val | Gly Phe Ile Phe Val Ala |
| | 20 | 25 |
| Leu Gly Ala Phe Gly | Ala His Val Leu | Ser Lys Ser Leu Gly Val Val |
| | 35 | 40 |
| Glu Met Gly Trp Ile | Gln Thr Gly Leu | Glu Tyr Gln Ala Phe His Thr |
| | 50 | 55 |
| Leu Ala Ile Phe Gly | Leu Ala Val Ala | Met Gln Pro Ala Ile Ser Ile |
| | 65 | 70 |
| Trp Phe Tyr Trp Ser | Val Tyr Leu Ala | Val Gly Thr Val Leu Phe |
| | 85 | 90 |
| Ser Gly Ile Leu Tyr | Cys Leu Ala Leu | Ser His Leu Arg Leu Trp Ala |
| | 100 | 105 |
| Phe Val Thr Pro Val | Gly Gly Val Ser | Phe Leu Ala Gly Trp Val Leu |
| | 115 | 120 |
| Met Phe Ile Gly Ala | Ile Arg Leu Lys | Arg Lys Gly Val Val His Glu |
| | 130 | 135 |
| | | 140 |

145

<210> 8115

<211> 202

<212> PRT

<213> Enterobacter cloacae

<400> 8115

| | | |
|---------------------|-----------------|-----------------------------|
| Pro Leu Tyr Arg Tyr | Thr Tyr Gly Leu | Ser Leu Ser Cys Leu Thr Arg |
| 1 | 5 | 10 |
| Arg Glu Lys Ser Val | Asp Ile Glu Thr | Ala Asn Ala Leu Thr Ser Phe |
| | 20 | 25 |
| Thr Thr Arg Tyr Cys | Asp Ala Trp His | Glu Lys Arg Gly Thr Trp Pro |
| | 35 | 40 |
| Gln Ser Thr Asp Leu | Cys Gly Val Pro | Ser Pro Cys Ile Ile Ala Ser |
| | 50 | 55 |
| Gln Asp Asp Tyr Val | Ile Trp Gln Pro | Lys Pro Phe Met Gly Glu Gln |
| | 65 | 70 |
| Asn Val Asn Ala Val | Glu Arg Ala Met | Asp Leu Val Ile Gln Pro Ala |
| | 85 | 90 |
| Leu His Ala Phe Tyr | Thr Thr Gln Phe | Ala Gly Asp Met Thr Ala Cys |
| | 100 | 105 |
| | | 110 |

Phe Ala Gly Gln Pro Leu Thr Leu Leu Gln Thr Trp Ser Glu Asp Asp
 115 120 125
 Leu Gln Arg Val Gln Glu Asn Leu Ile Gly His Leu Val Thr Gln Lys
 130 135 140
 Arg Leu Lys Leu Ser Pro Thr Leu Phe Ile Ala Thr Leu Asp Ser Glu
 145 150 155 160
 Leu Asp Val Ile Ser Val Cys Asn Leu Ser Gly Glu Val Ile Lys Glu
 165 170 175
 Thr Leu Gly Thr Arg Asn Arg Asp Val Leu Ala Pro Ser Leu Ala Asp
 180 185 190
 Phe Leu Thr Arg Ile Glu Pro Leu Leu
 195 200

<210> 8116

<211> 264

<212> PRT

<213> Enterobacter cloacae

<400> 8116

Arg Cys Met Thr Leu Glu Ile Leu Tyr Gln Asp Glu Trp Leu Val Ala
 1 5 10 15
 Val Asn Lys Pro Ser Gly Trp Leu Val His Arg Ser Trp Leu Asp Arg
 20 25 30
 Asp Glu Lys Val Val Val Met Gln Thr Val Arg Asp Gln Ile Gly Gln
 35 40 45
 His Val Phe Thr Ala His Arg Leu Asp Arg Pro Thr Ser Gly Val Leu
 50 55 60
 Leu Met Gly Leu Ser Ser Glu Ala Gly Arg Leu Ala Gln Gln Phe
 65 70 75 80
 Glu Gln His Gln Ile Gln Lys Arg Tyr His Ala Ile Val Arg Gly Trp
 85 90 95
 Leu Met Asp Ser Ala Thr Leu Asp Tyr Pro Leu Val Glu Glu Leu Asp
 100 105 110
 Lys Ile Ala Asp Lys Phe Ala Arg Glu Asp Lys Gly Pro Gln Pro Ala
 115 120 125
 Val Thr Asp Tyr Arg Gly Met Ala Thr Thr Glu Leu Pro Val Ala Thr
 130 135 140
 Ser Lys Phe Pro Thr Thr Arg Tyr Ser Leu Val Glu Leu Leu Pro Lys
 145 150 155 160
 Thr Gly Arg Lys His Gln Leu Arg Arg His Leu Ala His Leu Arg His
 165 170 175
 Pro Ile Ile Gly Asp Ser Lys His Gly Asp Leu Arg Gln Asn Arg Ser
 180 185 190
 Ala Ala Glu His Phe Gly Cys Asn Arg Leu Met Leu His Ala Ser Glu
 195 200 205
 Leu Arg Leu Thr His Pro Phe Thr Gly Glu Pro Leu Thr Ile Arg Ala
 210 215 220
 Gly Leu Asp Lys Val Trp Met Gln Ala Leu Ser Gln Phe Gly Trp Leu
 225 230 235 240
 Gly Gln Leu Pro Glu Asn Glu Arg Val Glu Phe Ala Ala Gly Asn Val
 245 250 255
 Gln Asp Glu Gln Gln Ala Gln
 260

<210> 8117

<211> 155

<212> PRT

<213> Enterobacter cloacae

<400> 8117

Leu Arg Glu Gln Ser Met Ala Glu Val Gly Ile Phe Val Gly Thr Met

| | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | | | 5 | | | | | 10 | | | | 15 |
| Tyr | Gly | Asn | Ser | Leu | Leu | Val | Ala | Glu | Glu | Ala | Glu | Ala | Ile |
| | | | 20 | | | | | 25 | | | | | 30 |
| Asn | Gln | Gly | His | Lys | Ala | Thr | Val | Tyr | Glu | Asp | Pro | Glu | Leu |
| | | 35 | | | | | 40 | | | | | 45 | Ala |
| Trp | Glu | Lys | Tyr | Lys | Asp | Lys | Tyr | Ile | Leu | Val | Val | Thr | Ser |
| | 50 | | | | | 55 | | | | | 60 | Thr | Thr |
| Gly | Gln | Gly | Asp | Leu | Pro | Asp | Ser | Ile | Val | Pro | Leu | Phe | Gln |
| 65 | | | | | 70 | | | | | 75 | | | 80 |
| Lys | Asp | Gln | Leu | Gly | Tyr | Gln | Pro | Asp | Val | His | Tyr | Gly | Ile |
| | | | | 85 | | | | | 90 | | | | 95 |
| Leu | Gly | Asp | Ser | Ser | Tyr | Ala | Asn | Phe | Cys | Gly | Gly | Gly | Lys |
| | | | 100 | | | | | 105 | | | | | 110 |
| Asp | Ala | Leu | Leu | Gln | Glu | Gln | Ser | Ala | Gln | Arg | Val | Gly | Glu |
| | | 115 | | | | | 120 | | | | | 125 | Met |
| Leu | Ile | Asp | Ala | Gly | Glu | His | Pro | Glu | Pro | Glu | Ser | Glu | Ser |
| | 130 | | | | | 135 | | | | | 140 | | Asn |
| Trp | Val | Glu | His | Trp | Ala | Thr | Leu | Leu | Asn | | | | |
| 145 | | | | | 150 | | | | | 155 | | | |

<210> 8118

<211> 385

<212> PRT

<213> Enterobacter cloacae

<400> 8118

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Trp | Leu | Met | Lys | Ile | Val | Ile | Ala | Pro | Asp | Ser | Tyr | Lys | Glu | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | Ala | Leu | Glu | Val | Ala | Thr | Ala | Ile | Glu | Val | Gly | Phe | Arg | Glu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ile | Phe | Pro | Ser | Ala | His | Tyr | Val | Lys | Leu | Pro | Val | Ala | Asp | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Glu | Gly | Thr | Val | Glu | Ala | Met | Val | Ala | Ala | Thr | His | Gly | Arg | Leu | Val |
| | 50 | | | | | 55 | | | | 60 | | | | | |
| His | Val | Pro | Val | Thr | Gly | Pro | Leu | Gly | Glu | Arg | Val | Glu | Gly | Phe | Phe |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Leu | Ser | Gly | Asp | Gly | Lys | Ser | Ala | Phe | Ile | Glu | Met | Ala | Ala | Ala |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | Gly | Leu | Glu | Leu | Val | Ala | Pro | Ala | Lys | Arg | Asn | Pro | Leu | Ile | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Ser | Trp | Gly | Thr | Gly | Glu | Leu | Ile | Arg | His | Ala | Leu | Asp | Ala | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Lys | His | Ile | Ile | Ile | Gly | Ile | Gly | Gly | Ser | Ala | Thr | Asn | Asp | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Ala | Gly | Met | Val | Gln | Ala | Leu | Gly | Val | Lys | Leu | Leu | Asp | Ala | Lys |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Ala | Gln | Pro | Val | Gly | Pro | Gly | Gly | Gly | Glu | Leu | Ala | Ser | Leu | Ala | His |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Asp | Leu | Ser | Gly | Leu | Asp | Lys | Arg | Leu | Ala | Asp | Cys | Arg | Ile | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Val | Ala | Cys | Asp | Val | Thr | Asn | Pro | Leu | Ile | Gly | Glu | Thr | Gly | Ala | Ser |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ala | Val | Phe | Gly | Pro | Gln | Lys | Gly | Ala | Thr | Pro | Glu | Met | Val | Arg | Thr |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Leu | Asp | Asn | Ala | Leu | Ala | His | Tyr | Ala | Lys | Ile | Ile | Ala | Arg | Asp | Leu |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | |
| Asp | Ile | Asp | Val | Leu | Asn | Leu | Ala | Gly | Gly | Gly | Ala | Ala | Gly | Gly | Met |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Ala | Ala | Leu | Tyr | Ala | Phe | Cys | Gly | Ala | Gln | Leu | Arg | Gln | Gly | Ile |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Glu | Ile | Val | Thr | Asp | Ala | Leu | His | Leu | Asp | Glu | Gln | Val | Ala | Asp | Ala |

| | | | | | |
|-----|---------------------|-------------------------|-----------------|-----|-----|
| | 275 | | 280 | | 285 |
| Asp | Leu Val Ile Thr Gly | Glu Gly Arg Ile Asp Ser | Gln Thr Ile His | | |
| | 290 | 295 | 300 | | |
| Gly | Lys Val Pro Val Gly | Val Ala Arg Val Ala Lys | Arg Tyr Asn Lys | | |
| 305 | | 310 | 315 | | 320 |
| Pro | Val Ile Gly Ile Ala | Gly Ser Leu Thr Ala | Asp Val Gly Val | | |
| | 325 | 330 | 335 | | |
| His | Glu His Gly Leu Asp | Ala Val Phe Ser Val | Ile Tyr Thr Ile | Cys | |
| | 340 | 345 | 350 | | |
| Ser | Leu Glu Asp Ala Leu | Glu Asn Ala Gln Gln | Asn Val Gln Met | Ala | |
| | 355 | 360 | 365 | | |
| Ala | Arg Asn Ile Ala Ala | Val Ile Lys Met Gly | Gln Gly Met Ser | Arg | |
| | 370 | 375 | 380 | | |

385

<210> 8119

<211> 278

<212> PRT

<213> Enterobacter cloacae

<400> 8119

| | | | |
|-----|---------------------|---------------------|---------------------|
| Gly | Asn Ala Ala Thr Arg | Leu Arg His Leu Met | Glu Ser Val Met Thr |
| 1 | 5 | 10 | 15 |
| Gln | Ile Asp Arg Leu Leu | Gly Ile Met Lys Arg | Leu Arg Asp Pro Glu |
| | 20 | 25 | 30 |
| Asn | Gly Cys Pro Trp Asp | Lys Glu Gln Thr Phe | Ala Thr Ile Ala Pro |
| | 35 | 40 | 45 |
| Tyr | Thr Leu Glu Glu Thr | Tyr Glu Val Leu Asp | Ala Ile Ser Arg Glu |
| | 50 | 55 | 60 |
| Asp | Phe Asp Asp Leu Arg | Gly Glu Leu Gly Asp | Leu Leu Phe Gln Val |
| 65 | 70 | 75 | 80 |
| Val | Phe Tyr Ala Gln Met | Ala Gln Glu Glu Gly | Arg Phe Asn Phe Asp |
| | 85 | 90 | 95 |
| Asp | Ile Cys Ala Ala Ile | Ser Asp Lys Leu Glu | Arg Arg His Pro His |
| | 100 | 105 | 110 |
| Ile | Phe Gly Asp Ala Ser | Ala Gly Asn Ser Ala | Glu Val Leu Ala Arg |
| | 115 | 120 | 125 |
| Trp | Glu Gln Ile Lys Ser | Ala Glu Arg Ala Glu | Lys Ser Gln His Ser |
| | 130 | 135 | 140 |
| Ala | Leu Asp Asp Ile Pro | Leu Asn Leu Pro Ala | Leu Met Arg Ala His |
| 145 | 150 | 155 | 160 |
| Lys | Ile Gln Lys Arg Cys | Ser Ala Val Gly Phe | Asp Trp Thr Ser Leu |
| | 165 | 170 | 175 |
| Gly | Pro Val Leu Glu Lys | Val His Glu Glu Ile | Asp Glu Val Met His |
| | 180 | 185 | 190 |
| Glu | Ala Gln Gln Ala Val | Val Asp Glu Ala Lys | Leu Glu Glu Glu Met |
| | 195 | 200 | 205 |
| Gly | Asp Leu Leu Phe Ala | Thr Val Asn Leu Ser | Arg His Leu Gly Val |
| | 210 | 215 | 220 |
| Lys | Ala Glu Thr Ala Leu | Gln Lys Ala Asn Ile | Lys Phe Glu Arg Arg |
| 225 | 230 | 235 | 240 |
| Phe | Arg Glu Val Glu Arg | Ile Val Ala Ser Arg | Gly Leu Glu Met Ser |
| | 245 | 250 | 255 |
| Gly | Ile Asp Leu Asp Ala | Met Glu Glu Val Trp | Gln Glu Val Lys Arg |
| | 260 | 265 | 270 |
| Gln | Glu His Asp Leu | | |
| | 275 | | |

<210> 8120

<211> 458

<212> PRT

<213> Enterobacter cloacae

<400> 8120

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Ala | His | Leu | Ile | Thr | His | Ile | Ser | Pro | Leu | Gly | Ser | Met | Asp | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | Gln | Leu | Glu | Val | Asp | Met | Leu | Lys | Arg | Thr | Ala | Ser | Ser | Asp |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Tyr | Gln | Leu | Phe | Arg | Asn | Cys | Ser | Leu | Ala | Val | Leu | Asn | Ser | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Leu | Thr | Asp | Asn | Ser | Lys | Glu | Leu | Leu | Ser | Arg | Phe | Glu | Ser | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Ile | Asn | Val | Leu | Arg | Arg | Glu | Arg | Gly | Val | Lys | Leu | Glu | Val | Ile |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Pro | Pro | Glu | Asp | Ala | Phe | Val | Asp | Gly | Arg | Ile | Ile | Arg | Ser | Leu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gln | Ala | Asn | Leu | Phe | Ala | Val | Leu | Arg | Asp | Ile | Leu | Phe | Val | Asn | Gly |
| | | 100 | | | | | | | 105 | | | | | 110 | |
| Gln | Ile | Ser | Asn | Ala | Gly | Arg | Phe | Gln | His | Leu | Asp | Leu | Glu | Ser | Ser |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | His | Ile | Thr | Asn | Leu | Val | Phe | Ser | Ile | Leu | Arg | Asn | Ala | Arg | Ala |
| | 130 | | | | | | 135 | | | | | 140 | | | |
| Leu | His | Val | Gly | Glu | Ala | Pro | Asn | Met | Val | Val | Cys | Trp | Gly | Gly | His |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Ser | Ile | Asn | Glu | Thr | Glu | Tyr | Leu | Tyr | Ala | Arg | Arg | Val | Gly | Thr | Gln |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Gly | Leu | Arg | Glu | Leu | Asn | Ile | Cys | Thr | Gly | Cys | Gly | Pro | Gly | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Met | Glu | Ala | Pro | Met | Lys | Gly | Ala | Ala | Val | Gly | His | Ala | Gln | Gln | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Tyr | Lys | Glu | Gly | Arg | Phe | Ile | Gly | Met | Thr | Glu | Pro | Ser | Ile | Ile | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Glu | Pro | Pro | Asn | Pro | Leu | Val | Asn | Glu | Leu | Ile | Ile | Met | Pro | Asp |
| 225 | | | | 230 | | | | | | 235 | | | | | 240 |
| Ile | Glu | Lys | Arg | Leu | Glu | Ala | Phe | Val | Arg | Ile | Ala | His | Gly | Ile | Ile |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Ile | Phe | Pro | Gly | Gly | Val | Gly | Thr | Ala | Glu | Glu | Leu | Leu | Tyr | Leu | Leu |
| | | 260 | | | | | 265 | | | | | | 270 | | |
| Gly | Ile | Leu | Met | Asn | Pro | Ala | Asn | Lys | Asp | Gln | Val | Leu | Pro | Leu | Ile |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Thr | Gly | Pro | Lys | Glu | Ser | Ala | Asp | Tyr | Phe | Arg | Val | Leu | Asp | Glu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Phe | Ile | Val | His | Thr | Leu | Gly | Glu | Asp | Ala | Arg | Arg | His | Tyr | Arg | Ile |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ile | Ile | Asp | Asp | Ala | Ala | Glu | Val | Ala | Arg | Gln | Met | Lys | Lys | Ala | Met |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Pro | Leu | Val | Lys | Glu | Asn | Arg | Arg | Asp | Thr | Gly | Asp | Ala | Tyr | Ser | Phe |
| | | 340 | | | | | | 345 | | | | | 350 | | |
| Asn | Trp | Ser | Ile | Arg | Ile | Ala | Pro | Asp | Leu | Gln | Ile | Pro | Phe | Glu | Pro |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | His | Glu | Asn | Met | Ala | Asn | Leu | Lys | Leu | Tyr | Pro | Asp | Gln | Pro | Val |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Glu | Val | Leu | Ala | Ala | Asp | Leu | Arg | Arg | Ala | Phe | Ser | Gly | Ile | Val | Ala |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Gly | Asn | Val | Lys | Glu | Val | Gly | Ile | Arg | Ala | Ile | Glu | Glu | Phe | Gly | Pro |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Tyr | Lys | Ile | His | Gly | Asp | Pro | Glu | Met | Met | Arg | Arg | Met | Asp | Asp | Met |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Leu | Gln | Gly | Phe | Val | Ala | Gln | His | Arg | Met | Lys | Leu | Pro | Gly | Ser | Ala |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Tyr | Ile | Pro | Cys | Tyr | Glu | Ile | Ile | Lys | | | | | | | |

450

455

<210> 8121

<211> 457

<212> PRT

<213> Enterobacter cloacae

<400> 8121

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Asn | Phe | Ile | Leu | Pro | Ser | Gly | Thr | Phe | Ser | Ser | Asp | Leu | Thr | Lys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Asn | Leu | Thr | Ile | Cys | Phe | Leu | Gln | Glu | Ile | Gln | Met | Glu | Thr | Thr | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Ser | Thr | Val | Ala | Ser | Ile | Glu | Ser | Arg | Ser | Gly | Trp | Arg | Lys | Thr |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| Asp | Thr | Met | Trp | Met | Leu | Gly | Leu | Tyr | Gly | Thr | Ala | Ile | Gly | Ala | Gly |
| | | | 50 | | | 55 | | | | | 60 | | | | |
| Val | Leu | Phe | Leu | Pro | Ile | Asn | Ala | Gly | Val | Gly | Gly | Met | Ile | Pro | Leu |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Ile | Ile | Met | Ala | Leu | Ile | Ala | Phe | Pro | Met | Thr | Phe | Phe | Ala | His | Arg |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Gly | Leu | Thr | Arg | Phe | Val | Leu | Ser | Gly | Lys | Asn | Pro | Gly | Glu | Asp | Ile |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Glu | Val | Val | Glu | Glu | His | Phe | Gly | Val | Gly | Ala | Gly | Lys | Leu | Ile |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Thr | Leu | Leu | Tyr | Phe | Phe | Ala | Ile | Tyr | Pro | Ile | Leu | Leu | Val | Tyr | Ser |
| | | | 130 | | | 135 | | | | | 140 | | | | |
| Val | Ala | Ile | Thr | Asn | Thr | Val | Glu | Ser | Phe | Met | Met | His | Gln | Leu | Gln |
| 145 | | | | | 150 | | | | 155 | | | | | 160 | |
| Met | Thr | Pro | Pro | Pro | Arg | Ala | Ile | Leu | Ser | Leu | Ile | Leu | Ile | Val | Gly |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Met | Met | Thr | Ile | Val | Arg | Phe | Gly | Glu | Gln | Met | Ile | Val | Lys | Ala | Met |
| | | | 180 | | | | 185 | | | | | | 190 | | |
| Ser | Val | Leu | Val | Phe | Pro | Phe | Val | Ala | Ala | Leu | Met | Val | Leu | Ala | Leu |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Tyr | Leu | Ile | Pro | Gln | Trp | Asn | Gly | Ala | Ala | Leu | Glu | Thr | Leu | Ser | Leu |
| | | | 210 | | | 215 | | | | | 220 | | | | |
| Ser | Ser | Ala | Ser | Thr | Thr | Gly | Asn | Gly | Leu | Leu | Leu | Thr | Leu | Trp | Leu |
| 225 | | | | | 230 | | | | 235 | | | | | 240 | |
| Ala | Ile | Pro | Val | Met | Val | Phe | Ser | Phe | Asn | His | Ser | Pro | Ile | Ile | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ser | Phe | Ala | Val | Ala | Lys | Arg | Glu | Glu | Tyr | Gly | Asn | Gly | Ala | Glu | Lys |
| | | | 260 | | | | 265 | | | | | | 270 | | |
| Lys | Cys | Ser | Ser | Ile | Leu | Ala | Arg | Ala | His | Ile | Met | Met | Val | Leu | Thr |
| | | | 275 | | | | 280 | | | | | 285 | | | |
| Val | Met | Phe | Phe | Val | Phe | Ser | Cys | Val | Leu | Ser | Leu | Ser | Pro | Ala | Asp |
| | | | 290 | | | 295 | | | | | 300 | | | | |
| Leu | Ala | Ala | Ala | Lys | Glu | Gln | Asn | Ile | Ser | Ile | Leu | Ser | Tyr | Leu | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | 320 | |
| Asn | His | Phe | Asn | Ala | Pro | Leu | Ile | Ala | Trp | Met | Ala | Pro | Ile | Ile | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Ile | Ala | Ile | Thr | Lys | Ser | Phe | Leu | Gly | His | Tyr | Leu | Gly | Ala | Arg |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Gly | Phe | Asn | Gly | Met | Val | Ile | Lys | Ser | Leu | Arg | Gly | Lys | Gly | Lys |
| | | | 355 | | | | 360 | | | | | 365 | | | |
| Thr | Ile | Glu | Ile | Asn | Arg | Leu | Asn | Lys | Ile | Thr | Ala | Leu | Phe | Met | Leu |
| | | | 370 | | | 375 | | | | | 380 | | | | |
| Val | Thr | Thr | Trp | Ala | Val | Ala | Thr | Leu | Asn | Pro | Ser | Ile | Leu | Gly | Met |
| 385 | | | | | 390 | | | | | 395 | | | | 400 | |
| Ile | Glu | Thr | Leu | Gly | Gly | Pro | Ile | Ile | Ala | Met | Ile | Leu | Phe | Leu | Met |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Pro | Met | Tyr | Ala | Ile | Gln | Lys | Val | Pro | Ala | Met | Arg | Lys | Tyr | Ser | Gly |


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<211> 258
<212> PRT
<213> Enterobacter cloacae
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<211> 278
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<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | | |
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| <400> 8123 | | | | | | | | | | | | | | | | |
| Gly | Ser | Ser | Met | Ser | Asp | His | Glu | Asn | Leu | Leu | Leu | Lys | Leu | Arg | Gln | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Glu | Ala | Ser | Gly | Tyr | Ser | Pro | Thr | Gln | Gln | Lys | Leu | Gly | Glu | Phe | Val | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Leu | Asn | Asp | Pro | Ala | Arg | Val | Leu | Tyr | Leu | Thr | Ile | Thr | Glu | Leu | Ala | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Arg | Glu | Ser | Gly | Thr | Ser | Glu | Ala | Ser | Val | Thr | Arg | Leu | Cys | Arg | Thr | |
| | 50 | | | | | 55 | | | | 60 | | | | | | |

Leu Gly Cys Lys Gly Tyr Asn Glu Phe Lys Met Ala Leu Ala Leu Asp
 65 70 75 80
 Ile Gln Gln Gly Leu Pro Glu Arg Gln Ala Gly Asp Ala Ile Asp Asn
 85 90 95
 Val Val Asp Glu Ser Val Gln Ala Leu Gln Asp Thr Ala Lys Leu Leu
 100 105 110
 Asp Arg Ala Gln Leu Glu Gln Ala Thr Leu Ala Leu His Gln Ala Gln
 115 120 125
 Ser Val Gln Ile Tyr Gly Val Ala Ala Ser Ala Ile Leu Gly Glu Tyr
 130 135 140
 Leu His Tyr Lys Leu Leu Arg Leu Gly Lys Pro Ala Gln Leu Phe Ser
 145 150 155 160
 Asp Met His Arg Ala Ala Met Asn Ala Thr Thr Leu Ser Lys Glu Thr
 165 170 175
 Leu Val Val Ala Ile Ser Ser Ser Gly Ser Thr Arg Asp Leu Leu His
 180 185 190
 Val Val Lys Leu Ala Arg Lys Arg Gly Val Lys Val Leu Ala Leu Ser
 195 200 205
 Asn Thr Pro Arg Ser Pro Leu Ala Ser Leu Ser Asp Leu Gln Leu Val
 210 215 220
 Ala Ala Lys Pro Glu Gly Pro Leu Ser Ala Gly Ala Leu Asn Ala Lys
 225 230 235 240
 Val Gly Val Met Leu Leu Val Glu Leu Leu Thr Thr Ser Leu Ile Ala
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 Val Asp Ser His Tyr Gly Asp Val Ser Gln Gln Thr Ala Ser Ala Thr
 260 265 270
 Leu Pro Leu Leu Leu
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<210> 8124

<211> 282

<212> PRT

<213> Enterobacter cloacae

<400> 8124

Asn Met Ser Tyr Glu Asn His Gln Ala Leu Thr Gly Leu Thr Leu Gly
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 Lys Ser Thr Asp Tyr Arg Asp Thr Tyr Asp Ala Ser Leu Leu Gln Gly
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 Val Pro Arg Ser Leu Asn Arg Asp Pro Leu Gly Leu His Ala Asp Ala
 35 40 45
 Leu Pro Phe Val Gly Gly Asp Ile Trp Thr Leu Tyr Glu Leu Ser Trp
 50 55 60
 Leu Asn Ala Arg Gly Leu Pro Gln Val Ala Val Gly His Val Glu Leu
 65 70 75 80
 Asp Tyr Ala Ser Val Asn Leu Val Glu Ser Lys Ser Phe Lys Leu Tyr
 85 90 95
 Leu Asn Ser Phe Asn Gln Thr Lys Phe Asn Ser Trp Asp Glu Val Gln
 100 105 110
 Gln Thr Leu Glu Arg Asp Leu Ser Ala Cys Ala Gln Gly Asn Val Thr
 115 120 125
 Val Ser Leu Tyr Arg Leu His Glu Leu Glu Gly Gln Pro Ile Ala His
 130 135 140
 Phe His Gly Thr Cys Ile Asp Asp Gln Asp Ile Glu Val Glu Ser Tyr
 145 150 155 160
 Glu Phe Ser Ser Asp Tyr Leu Glu Asn Ala Ala Gly Gly Lys Val Val
 165 170 175
 Asn Glu Thr Leu Val Ser His Leu Leu Lys Ser Asn Cys Leu Ile Thr
 180 185 190
 His Gln Pro Asp Trp Gly Ser Val Gln Ile Gln Tyr Arg Gly Pro Gln
 195 200 205

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asp | Arg | Glu | Lys | Leu | Leu | Arg | Tyr | Leu | Val | Ser | Phe | Arg | His | His |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asn | Glu | Phe | His | Glu | Gln | Cys | Val | Glu | Arg | Ile | Phe | Asn | Asp | Ile | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Phe | Cys | Gln | Pro | Glu | Lys | Leu | Ser | Val | Tyr | Ala | Arg | Tyr | Thr | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Arg | Gly | Gly | Leu | Asp | Ile | Asn | Pro | Trp | Arg | Thr | Asn | Thr | Asp | Phe | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Ala | Thr | Gly | Arg | Leu | Val | Arg | Gln | | | | | | | |
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<210> 8125

<211> 433

<212> PRT

<213> Enterobacter cloacae

<400> 8125

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Ala | Ile | Thr | Val | Thr | Leu | Ala | Ser | Lys | Arg | Gln | Ala | Pro | Arg | Cys |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Arg | Phe | Cys | Tyr | Arg | Lys | Gln | Lys | Thr | Arg | Arg | Ser | Gly | Phe | Phe | Arg |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Lys | Asn | Glu | Gly | Ser | Gly | Leu | Cys | Leu | Ala | Phe | Asp | Leu | Phe | Thr | Thr |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Val | Arg | Cys | Phe | Phe | Ala | Gln | Arg | Phe | Phe | Asp | Thr | Asn | Gln | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Val | Phe | Ser | Asn | Thr | Val | Arg | Thr | Ala | His | Arg | Thr | Gly | Phe | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Ala | Ser | Ser | Gly | Thr | Asn | Ser | Gln | Val | Ser | Asp | Gly | Ser | Val | Phe |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Ser | Phe | Ala | Arg | Thr | Val | Arg | Asp | Asn | Arg | Gly | Val | Ala | Ser | Val | Phe |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | His | Phe | Asp | Arg | Ser | Gln | Arg | Phe | Gly | Gln | Arg | Thr | Asp | Leu | Val |
| | | 115 | | | | 120 | | | | | | 125 | | | |
| Glu | Phe | Asp | Gln | Asp | Gly | Val | Asn | Asp | Ala | Phe | Leu | Asp | Ala | Phe | Phe |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gln | Asp | Leu | Gly | Val | Gly | Tyr | Glu | Gln | Ile | Val | Thr | Asn | Gln | Leu | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Val | Ala | Gln | Tyr | Phe | Gly | Leu | Val | Cys | Glu | Thr | Ile | Pro | Val | Arg |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Val | Gln | Thr | Val | Phe | Asp | Arg | Asn | Asp | Trp | Val | Leu | Phe | Gly | Gln |
| | | 180 | | | | | | 185 | | | | | 190 | | |
| Val | Phe | Gln | Glu | Val | Gly | Glu | Leu | Phe | Arg | Gly | Glu | Arg | Phe | Val | Ala |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Phe | Ala | Ser | Gln | Asn | Val | Phe | Thr | Val | Phe | Val | Glu | Phe | Arg | Cys | Cys |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ala | Val | His | Arg | Gln | Gly | Asp | Val | Phe | Ala | Gln | Leu | Val | Ala | Cys | Cys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Phe | Asn | Arg | Phe | Ser | Asp | Asn | Ser | Gln | Cys | Phe | Cys | Val | Arg | Thr | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Trp | Arg | Val | Ala | Ala | Phe | Val | Thr | Asn | Ser | Arg | Val | His | Thr | Phe |
| | | 260 | | | | | | 265 | | | | | 270 | | |
| Ser | Phe | Gln | Asn | Phe | Ser | Gln | Val | Val | Glu | His | Phe | Arg | Thr | His | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Tyr | Arg | Phe | Phe | Gln | Gly | Phe | Arg | Ala | Asn | Trp | Leu | Asn | His | Glu | Phe |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Asn | Ile | Asn | Val | Val | Cys | Val | Leu | Thr | Val | Asp | Asp | Val | | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| His | His | Trp | Tyr | Arg | His | Arg | Val | Phe | Ala | Trp | Gly | Ala | Val | Gln | Phe |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ser | Asp | Val | Leu | Glu | Gln | Trp | His | Ala | Phe | Ser | Cys | Cys | Cys | Arg | Phe |
| | | | 340 | | | | | 345 | | | | | 350 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Val | Arg | Gln | Gly | Asn | Gly | Gln | Asp | Cys | Val | Arg | Thr | Glu | Val | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Phe | Val | Phe | Ser | Thr | Val | Gln | Ile | Asp | His | Asp | Leu | Val | Asp | Ala | Ser |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Leu | Ile | Phe | Ser | Ile | Phe | Ala | Asn | Asp | Ser | Leu | Ser | Asn | Arg | Thr | Val |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asn | Ser | Ala | Asn | Arg | Phe | Gln | Tyr | Ala | Phe | Ala | His | Glu | Thr | Gly | Phe |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Val | Ala | Ile | Thr | Gln | Phe | Gln | Arg | Phe | Ala | Gly | Thr | Cys | Arg | Ser | Thr |
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<210> 8126

<211> 466

<212> PRT

<213> Enterobacter cloacae

<400> 8126

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| Gln | Phe | Val | Glu | Leu | Val | Glu | Val | Val | Ala | Arg | Gln | Gln | Glu | Leu | Leu |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Arg | Leu | Phe | Gln | Ala | Tyr | Pro | Asp | Met | Phe | Gln | Leu | Val | Val | Gln | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Thr | Gly | Lys | Asp | Val | Leu | Val | Thr | Ile | Leu | Leu | Ala | Glu | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Val | Asp | Phe | Arg | Ala | Pro | Thr | Ala | Gly | Gly | Asn | Val | Thr | Glu | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Arg | Ile | Gln | Pro | Val | Ala | Trp | Val | Trp | Leu | Leu | Gly | Asp | Asp | | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |
| Phe | Asn | Leu | Ile | Ala | His | Leu | Glu | Leu | Val | Gly | Lys | Arg | Tyr | Asp | Thr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Ser | Ala | Asp | Leu | Arg | Pro | Asp | Ala | Thr | Val | Pro | His | Ile | Ala | Val | Asp |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Val | Gly | Glu | Ile | Glu | Arg | Arg | Gly | Ala | Cys | Arg | Gln | Ile | Asn | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Val | Pro | Phe | Arg | Gly | Lys | Asp | Val | Asp | Ala | Ile | Val | Glu | Asp | Leu | Thr |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | His | Phe | Val | Glu | His | Phe | Ala | Gly | Val | Gly | His | Leu | Phe | Leu | Pro |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Arg | Asn | Gln | Leu | Thr | Gln | Pro | Gly | Asp | Thr | Val | Leu | Val | Thr | Gly | Ala |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Thr | Ala | Thr | Gly | Gly | Thr | Leu | Phe | Val | Phe | Pro | Val | Arg | Arg | His | Ala |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gln | Leu | Gly | Val | Phe | Val | His | Leu | Phe | Gly | Thr | Asp | Leu | Asn | Phe | His |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Phe | Ala | Ala | Arg | Ala | Glu | His | His | Gly | Met | Asp | Arg | Leu | Ile | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ile | Arg | Phe | Arg | Val | Arg | Asp | Val | Val | Ile | Glu | Leu | Ile | Arg | Gln | Met |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ala | Glu | Met | Ser | Met | His | Tyr | Pro | Gln | Arg | Gly | Ile | Ala | Val | Leu | Lys |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Thr | Leu | Arg | His | Asp | Thr | His | Arg | Ala | His | Val | Lys | Gln | Leu | Val | Lys |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Glu | Val | Phe | Leu | Leu | His | Phe | Ala | Pro | Asp | Ala | Val | Asp | Val | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Trp | Thr | Pro | Val | Asp | Leu | Gly | Ala | His | Ile | Leu | Leu | Phe | His | Arg | Leu |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Ala | Gln | Pro | Ala | Asp | Lys | Phe | Leu | Asp | Ile | Val | Leu | Ala | Val | Asn | Ala |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Ala | Phe | Val | Gln | Gln | Phe | Cys | Asn | Ala | Phe | Val | Phe | Arg | Arg | Met | Gln |
| | | | 325 | | | | | | 330 | | | | | 335 | |

Val Ala Glu Ala Val Ile Phe Gln Leu Pro Leu Gln Leu Pro Asp Thr
 340 345 350
 Gln Thr Val Arg Gln Arg Arg Ile Asp Ile Arg Thr Leu Phe Gly Gly
 355 360 365
 Gln Asp Ala Leu Val Phe Arg Arg Ile Leu Tyr Phe Thr Gln Met Gly
 370 375 380
 Asn Pro Phe Gly Gln Leu Asp His His Ala Ala Glu Ile Ile Tyr His
 385 390 395 400
 Arg Gln Gln His Thr Thr Asn Val Ile His Leu Leu Gly Arg Asp Arg
 405 410 415
 Val Ser Leu Arg Gly Phe Lys Leu Thr Asn Gly Cys His Ile Thr His
 420 425 430
 Ala Val Asp Glu Arg His Asp Gly Leu Ala Asp Ala Phe Thr Gln Asp
 435 440 445
 Val Phe Arg His His Val Gly Val Arg Gln Gly Glu Gln Gln Cys Gly
 450 455 460
 Leu
 465

<210> 8127

<211> 923

<212> PRT

<213> Enterobacter cloacae

<400> 8127

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 Ile Leu Ala Pro Thr Val Leu Ile Gly Leu Leu Leu Ser Ile Phe Phe
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 Val Val His Arg Tyr Asn Asp Leu Gln Arg Gln Leu Glu Asp Ala Gly
 35 40 45
 Ala Ser Ile Ile Glu Pro Leu Ala Val Ser Ser Glu Tyr Gly Met Asn
 50 55 60
 Leu Gln Asn Arg Glu Ser Ile Gly Gln Leu Ile Ser Val Leu His Arg
 65 70 75 80
 Arg His Ser Glu Ile Val Arg Ala Ile Ser Val Tyr Asp Glu His Asn
 85 90 95
 Arg Leu Phe Val Thr Ser Asn Phe His Leu Asp Pro Thr Ser Leu Lys
 100 105 110
 Ile Pro Asp Gly Thr Pro Phe Pro Arg His Leu Thr Val Leu Arg Arg
 115 120 125
 Gly Asp Ile Met Ile Leu Arg Thr Pro Ile Ile Ser Glu Ser Tyr Ser
 130 135 140
 Pro Asp Glu Ser Ala Gln Ser Asp Ala Lys Ser Ser Asn Asn Met Leu
 145 150 155 160
 Gly Tyr Val Ala Leu Glu Leu Asp Leu Lys Ser Val Arg Leu Gln Gln
 165 170 175
 Tyr Lys Glu Ile Phe Ile Ser Gly Val Met Met Leu Phe Cys Ile Gly
 180 185 190
 Ile Ala Leu Ile Phe Gly Trp Arg Leu Met Arg Asp Val Thr Gly Pro
 195 200 205
 Ile Arg Asn Met Val Asn Thr Val Asp Arg Ile Arg Arg Gly Gln Leu
 210 215 220
 Asp Ser Arg Val Glu Gly Phe Met Leu Gly Glu Leu Asp Met Leu Lys
 225 230 235 240
 Asn Gly Ile Asn Ser Met Ala Met Ser Leu Ala Ala Tyr His Glu Glu
 245 250 255
 Met Gln His Asn Val Asp Gln Ala Thr Ser Asp Leu Arg Glu Thr Leu
 260 265 270
 Glu Gln Met Glu Ile Gln Asn Val Glu Leu Asp Leu Ala Lys Lys Arg
 275 280 285

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Gln | Glu | Ala | Ala | Arg | Ile | Lys | Ser | Glu | Phe | Leu | Ala | Asn | Met | Ser |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Glu | Leu | Arg | Thr | Pro | Leu | Asn | Gly | Val | Ile | Gly | Phe | Thr | Arg | Leu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Thr | Leu | Lys | Ser | Glu | Leu | Asn | Pro | Thr | Gln | Arg | Asp | His | Leu | His | Thr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Glu | Arg | Ser | Ala | Asn | Asn | Leu | Leu | Thr | Ile | Ile | Asn | Asp | Val | Leu |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Asp | Phe | Ser | Lys | Leu | Glu | Ala | Gly | Lys | Leu | Ile | Leu | Glu | Ser | Ile | Pro |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Phe | Pro | Leu | Arg | Ser | Thr | Leu | Asp | Asp | Val | Val | Thr | Leu | Leu | Ala | His |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Ser | Ser | His | Asp | Lys | Gly | Leu | Glu | Leu | Thr | Leu | Asn | Ile | Lys | Asn | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Val | Pro | Asp | Asn | Val | Ile | Gly | Asp | Pro | Leu | Arg | Leu | Gln | Gln | Val | Ile |
| | | | 405 | | | | | 410 | | | | | | 415 | |
| Thr | Asn | Leu | Val | Gly | Asn | Ala | Ile | Lys | Phe | Thr | Glu | Ser | Gly | Asn | Ile |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Ile | Leu | Val | Glu | Lys | Arg | Ala | Leu | Ser | Asn | Asn | Lys | Val | Gln | Ile |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Glu | Val | Gln | Ile | Arg | Asp | Thr | Gly | Ile | Gly | Ile | Pro | Glu | Arg | Asp | Gln |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Thr | Arg | Leu | Phe | Gln | Ala | Phe | Arg | Gln | Ala | Asp | Ala | Ser | Ile | Ser | Arg |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Arg | His | Gly | Gly | Thr | Gly | Leu | Gly | Leu | Val | Ile | Thr | Gln | Lys | Leu | Val |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Lys | Glu | Met | Gly | Gly | Asp | Ile | Ser | Phe | His | Ser | Gln | Pro | Asn | Arg | Gly |
| | | 500 | | | | | | 505 | | | | | 510 | | |
| Ser | Thr | Phe | Trp | Phe | His | Ile | Asn | Leu | Asp | Leu | Asn | Pro | Asn | Val | Gln |
| | 515 | | | | | | 520 | | | | | 525 | | | |
| Thr | Asp | Gly | Pro | Val | Thr | Gly | Cys | Leu | Lys | Gly | Met | Arg | Leu | Ala | Tyr |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Val | Glu | Pro | Asn | Ala | Ala | Ala | Ala | Gln | Cys | Thr | Leu | Asp | Val | Leu | Ser |
| 545 | | | | 550 | | | | | | 555 | | | | | 560 |
| Ser | Thr | Pro | Leu | Glu | Val | Ile | Tyr | Ser | Pro | Thr | Phe | Ser | Ala | Leu | Ala |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Asn | Asp | His | Tyr | Asp | Ile | Leu | Leu | Leu | Gly | Ile | Pro | Val | Thr | Phe | Thr |
| | | 580 | | | | | | 585 | | | | | 590 | | |
| Gly | Glu | Leu | Thr | Met | Gln | Gln | Glu | Arg | Leu | Ala | Lys | Ala | Ala | Ser | Met |
| | 595 | | | | | | 600 | | | | | 605 | | | |
| Thr | Asp | Tyr | Leu | Leu | Leu | Ala | Leu | Pro | Cys | His | Ala | Gln | Ile | Asn | Ala |
| | 610 | | | | | 615 | | | | | 620 | | | | |
| Glu | Glu | Leu | Lys | Asn | Asp | Gly | Ala | Ala | Ala | Cys | Leu | Leu | Lys | Pro | Leu |
| 625 | | | | | 630 | | | | | 635 | | | | | 640 |
| Thr | Ala | Thr | Arg | Leu | Leu | Pro | Ala | Leu | Thr | Glu | Tyr | Cys | Arg | Leu | Thr |
| | | | | 645 | | | | | 650 | | | | | 655 | |
| His | Gln | Ser | Leu | Pro | Leu | Glu | Asn | Asp | Glu | His | Lys | Leu | Pro | Met | Thr |
| | | 660 | | | | | | 665 | | | | | 670 | | |
| Val | Met | Ala | Val | Asp | Asp | Asn | Pro | Ala | Asn | Leu | Lys | Leu | Ile | Gly | Val |
| | | 675 | | | | | 680 | | | | | 685 | | | |
| Leu | Leu | Glu | Asp | Gln | Val | Gln | His | Val | Glu | Leu | Cys | Thr | Ser | Gly | Ala |
| | 690 | | | | | 695 | | | | | 700 | | | | |
| Glu | Ala | Val | Glu | Gln | Ala | Lys | Gln | Met | Gln | Phe | Asp | Leu | Ile | Leu | Met |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Asp | Ile | Gln | Met | Pro | Gly | Met | Asp | Gly | Ile | Arg | Ala | Cys | Glu | Leu | Ile |
| | | | | 725 | | | | 730 | | | | | | 735 | |
| Arg | Gln | Leu | Pro | His | Gln | Gln | Gln | Thr | Pro | Val | Ile | Ala | Val | Thr | Ala |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| His | Ala | Met | Ala | Gly | Gln | Lys | Glu | Lys | Leu | Leu | Gly | Ala | Gly | Met | Asn |
| | 755 | | | | | | 760 | | | | | 765 | | | |
| Asp | Tyr | Leu | Ala | Lys | Pro | Ile | Asp | Glu | Glu | Lys | Leu | His | Ser | Leu | Leu |

| | | |
|---|-----|-----|
| 770 | 775 | 780 |
| Leu Arg Tyr Lys Pro Gly His Ile Gly Gly Thr Tyr Thr Ile Thr Ala | | |
| 785 | 790 | 795 |
| Glu Ser Pro Glu Ile Ser Val Asn Gln Asn Ala Thr Phe Asp Trp Gln | | 800 |
| | 805 | 810 |
| Leu Ala Leu Arg Gln Ala Ala Gly Lys Pro Asp Leu Ala Arg Asp Met | | 815 |
| | 820 | 825 |
| Leu Gln Met Leu Val Asp Phe Leu Pro Glu Ile Arg Asn Lys Val Glu | | 830 |
| | 835 | 840 |
| Glu Gln Leu Val Gly Glu Asn Pro Glu Gly Leu Leu Glu Ala Ile His | | 845 |
| | 850 | 855 |
| Lys Leu His Gly Ser Cys Gly Tyr Ser Gly Val Pro Arg Leu Lys Asn | | 860 |
| 865 | 870 | 875 |
| Leu Cys Gln Leu Leu Glu Gln Gln Leu Arg Ala Gly Thr Pro Glu Ser | | 880 |
| | 885 | 890 |
| Asp Leu Glu Pro Glu Phe Leu Glu Leu Leu Asp Glu Met Asp Asn Val | | 895 |
| | 900 | 905 |
| Thr Arg Glu Ala Met Lys Val Leu Gly Ser | | 910 |
| | 915 | 920 |

<210> 8128

<211> 461

<212> PRT

<213> Enterobacter cloacae

<400> 8128

| | | |
|---|-----|-----|
| Ser Asn Gly Arg Ile Met Ile Ser Val Phe Asp Ile Phe Lys Ile Gly | | |
| 1 | 5 | 10 |
| Ile Gly Pro Ser Ser Ser His Thr Val Gly Pro Met Lys Ala Gly Lys | | 15 |
| | 20 | 25 |
| Gln Phe Thr Asp Asp Leu Ile Ala Arg Gly Ile Leu His Asp Ile Thr | | 30 |
| | 35 | 40 |
| Arg Val Val Val Asp Val Tyr Gly Ser Leu Ser Leu Thr Gly Lys Gly | | 45 |
| | 50 | 55 |
| His His Thr Asp Ile Ala Ile Ile Met Gly Leu Ala Gly Asn Leu Pro | | 60 |
| 65 | 70 | 75 |
| Asp Thr Val Asp Ile Asp Ala Ile Pro Gly Phe Ile Gln Asp Val Asn | | 80 |
| | 85 | 90 |
| Thr His Gly Arg Leu Leu Leu Ala Asn Gly Glu His Glu Val Glu Phe | | 95 |
| | 100 | 105 |
| Pro Val Asp His Cys Met Asn Phe His Ala Asp Asn Leu Ser Leu His | | 110 |
| | 115 | 120 |
| Glu Asn Gly Met Arg Ile Thr Ala Leu Ala Gly Asp Lys Ala Val Tyr | | 125 |
| | 130 | 135 |
| Ser Gln Thr Tyr Tyr Ser Ile Gly Gly Gly Phe Ile Val Asp Glu Asp | | 140 |
| 145 | 150 | 155 |
| His Phe Gly Gln Ser Thr Asn Ser Ala Val Asp Val Pro Tyr Pro Tyr | | 160 |
| | 165 | 170 |
| Lys Asn Ala Ala Asp Leu Gln Arg His Cys Gln Glu Thr Gly Leu Ser | | 175 |
| | 180 | 185 |
| Leu Ser Gly Leu Met Met Lys Asn Glu Leu Ala Leu His Ser Lys Glu | | 190 |
| | 195 | 200 |
| Glu Leu Glu Gln His Phe Ala Asn Val Trp Glu Val Met Arg Ser Gly | | 205 |
| | 210 | 215 |
| Ile Glu Arg Gly Ile Thr Thr Glu Gly Val Leu Pro Gly Lys Leu Arg | | 220 |
| 225 | 230 | 235 |
| Val Pro Arg Arg Ala Ala Leu Arg Arg Met Leu Val Ser Ala Asp | | 240 |
| | 245 | 250 |
| Lys Thr Thr Thr Asp Pro Met Ala Val Val Asp Trp Ile Asn Met Phe | | 255 |
| | 260 | 265 |
| Ala Leu Ala Val Asn Glu Glu Asn Ala Ala Gly Gly Arg Val Val Thr | | 270 |


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<210> 8129
<211> 167
<212> PRT
<213> Enterobacter cloacae
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<210> 8130
<211> 274
<212> PRT
<213> Enterobacter cloacae
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 $\langle 222 \rangle (242)$

<220>
 <221>UNSURE
 <222>(243)

<220>
 <221>UNSURE
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 <222>(265)

<400> 8130

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Arg | Cys | Gly | Arg | Pro | Gln | Phe | Gln | Arg | Leu | Asp | Ile | Gly | Phe | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gly | Pro | Leu | Thr | Phe | Phe | Lys | Glu | Ala | Gly | Leu | Lys | Ile | Asp | Thr | |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Thr | Leu | Leu | Leu | Pro | Glu | Thr | Gly | Phe | Leu | Leu | Val | Gly | Glu | Phe | Phe |
| | | | 35 | | | | 40 | | | | | 45 | | | |
| His | Tyr | Ala | Ser | Leu | Asn | Ser | Pro | Phe | Ala | Thr | Ser | Ile | Ser | Ser | Lys |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Thr | Arg | Phe | Arg | Arg | Glu | Gly | Gly | Lys | Thr | Arg | Ala | Gly | Tyr | Ala | Arg |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Val | Asp | Glu | Arg | Leu | Arg | Gln | His | Phe | Arg | Gly | Glu | Asn | Asp | Asp | Arg |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Ser | Arg | His | Ile | Leu | Val | Trp | Thr | Asp | Ile | Val | Ser | Leu | Asn | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Arg | Asp | Leu | Ile | Arg | His | Val | His | Ala | Phe | His | His | Phe | Ala | Lys | His |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Arg | Val | Ala | Lys | Val | Ala | Leu | Thr | Val | Val | Gln | Glu | Gly | Val | Ile | Ser |
| | | 130 | | | | 135 | | | | | 140 | | | | |
| His | Val | Glu | Glu | Glu | Leu | Ala | Gly | Gly | Ala | Val | Phe | Val | Arg | Arg | Thr |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Arg | His | Arg | Asp | Gly | Ala | Ala | Leu | Val | Gln | Gln | Ala | Val | Val | Ser | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ile | Phe | Asp | Gly | Arg | Val | Arg | Leu | Phe | Leu | Leu | His | Leu | Leu | Val | Lys |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Thr | Ala | Thr | Leu | Asn | His | Lys | Ala | Arg | Asp | His | Ala | Val | Glu | Cys | Gly |
| | | | 195 | | | | 200 | | | | | 205 | | | |
| Val | Val | Ile | Lys | Thr | Thr | Val | His | Val | Val | Glu | Glu | Val | Phe | His | Arg |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Asn | Arg | Gly | Phe | Leu | Ala | Ile | Gln | Leu | Gln | Leu | Asn | Ile | Pro | Arg | Lys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Ser | Xaa | Xaa | Gln | Asp | Xaa | Arg | Val | Ser | Phe | Gly | Cys | Xaa | Arg | Xaa | Arg |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gly | Asn | Gly | Lys | Lys | Ser | Xaa | Pro | Xaa | Cys | Asn | Asn | Arg | Pro | Leu | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |

Ile

<210> 8131
 <211> 74
 <212> PRT
 <213> Enterobacter cloacae

<400> 8131
 Met Met Lys Asp Thr Thr Ile Glu Ala Arg Leu Ala Glu Leu Glu Ser
 1 5 10 15
 Arg Leu Ala Phe Gln Asp Ile Thr Ile Glu Glu Leu Asn Gln Thr Val
 20 25 30
 Thr Ala His Glu Leu Glu Met Ala Lys Leu Arg Asp His Met Arg Leu
 35 40 45
 Leu Thr Glu Lys Leu Lys Ala Thr Gln Pro Ser Asn Ile Ala Ser Gln
 50 55 60
 Ser Glu Glu Thr Pro Pro Pro His Tyr
 65 70

<210> 8132
 <211> 218
 <212> PRT
 <213> Enterobacter cloacae

<400> 8132
 Gly Val Lys Lys Ala Gly Leu Ser Arg Phe Phe Ile Phe Arg Ser Thr
 1 5 10 15
 Glu Ser Val Ala Thr Ala Ala Ala Val Thr Ala Thr Thr Phe Thr Val
 20 25 30
 Ala Val Val Met Thr Met Val Val Ala Val Thr Thr Ala Ala Val
 35 40 45
 Met Ala Val Ile Val Val Met Val Val Thr Val Arg Thr Val Asn Val
 50 55 60
 Ala Met Ser Gln Leu Phe Phe Ser Arg Phe Thr Asp Arg Asn Asn Phe
 65 70 75 80
 Tyr Val Glu Leu Gln Val Leu Thr Arg Gln His Val Val Ala Val Asn
 85 90 95
 His Asn Val Val Val Phe Asn Phe Ser Asp Phe Asn Arg Asn Arg Thr
 100 105 110
 Leu Val Ser Phe Arg Gln Glu Ala His Ala Asn Leu Gln Leu Val Asn
 115 120 125
 Ala His Glu Tyr Val Phe Arg Asn Ala Leu Asn Gln Val Val Val Ile
 130 135 140
 Leu Thr Val Ser Val Val Arg Ala Tyr Ser Asn Val Glu Phe Val Ala
 145 150 155 160
 Asn Phe Met Ala Phe Gln Arg Arg Phe Gln Ala Gly Asn Gln Gly Thr
 165 170 175
 Val Thr Met Gln Val Val Gln Arg Arg Thr His Arg Arg Leu Ile Asn
 180 185 190
 Gln His Thr Val Phe Cys Thr Tyr Leu Ile Gly Gln Ala Asp His Gln
 195 200 205
 Val Phe Cys Tyr Phe His Asp Ile Ser
 210 215

<210> 8133
 <211> 74
 <212> PRT
 <213> Enterobacter cloacae

<400> 8133
 Lys Met Ile Ile Pro Trp Gln Asp Leu Ser Pro Asp Thr Leu Asp Asn

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | | 5 | | 10 | | 15 | | | | | | | | | |
| Leu | Ile | Glu | Ser | Phe | Val | Leu | Arg | Glu | Gly | Thr | Asp | Tyr | Gly | Glu | His |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Glu | Arg | Ser | Leu | Glu | Gln | Lys | Val | Asn | Asp | Val | Lys | Arg | Gln | Leu | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Gly | Asp | Val | Val | Leu | Val | Trp | Ser | Glu | Leu | His | Glu | Thr | Val | Asn |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ile | Met | Pro | Arg | Asn | Ala | Phe | His | Gly | | | | | | | |
| 65 | | | | | 70 | | | | | | | | | | |

<210> 8134

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 8134

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | His | Phe | Ser | Ser | Gln | Gly | Val | Ala | Met | Ser | Ala | Arg | His | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Val | Ile | Ala | Val | Thr | Gly | Ser | Ser | Gly | Ala | Gly | Thr | Thr | Thr | Thr | Ser |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Ala | Phe | Arg | Lys | Ile | Phe | Ala | Gln | Leu | Asn | Leu | Arg | Ala | Ala | Glu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Val | Glu | Gly | Asp | Ser | Phe | His | Arg | Tyr | Thr | Arg | Pro | Glu | Met | Asp | Met |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Ile | Arg | Lys | Ala | Arg | Asp | Leu | Gly | Lys | His | Ile | Ser | Tyr | Phe | Gly |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Pro | Glu | Ala | Asn | Asp | Phe | Gly | Leu | Leu | Glu | Gln | Thr | Phe | Arg | Glu | Tyr |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Gly | Gln | Ser | Gly | Thr | Gly | Gln | Ser | Arg | Lys | Tyr | Leu | His | Thr | Tyr | Asp |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Glu | Ala | Val | Pro | Trp | Asn | Gln | Val | Pro | Gly | Thr | Phe | Thr | Pro | Trp | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Leu | Pro | Glu | Pro | Thr | Asp | Val | Leu | Phe | Tyr | Glu | Gly | Leu | His | Gly |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Gly | Val | Val | Thr | Pro | Gln | Ser | Tyr | Ser | Thr | Trp | Arg | Ala | Thr | Trp | Ile |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Cys | Trp | Trp | Gly | Trp | Cys | Arg | Leu | Leu | Thr | Leu | Ser | Gly | Ser | Arg | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |

<210> 8135

<211> 213

<212> PRT

<213> Enterobacter cloacae

<400> 8135

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Arg | Met | Val | Leu | Gly | Lys | Pro | Gln | Thr | Asp | Pro | Thr | Leu | Glu | Trp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Phe | Leu | Ser | His | Cys | His | Ile | His | Lys | Tyr | Pro | Ser | Lys | Ser | Thr | Leu |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Ile | His | Gln | Gly | Glu | Lys | Ala | Glu | Thr | Leu | Tyr | Tyr | Ile | Val | Lys | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Val | Ala | Val | Leu | Ile | Lys | Asp | Glu | Glu | Gly | Lys | Glu | Met | Ile | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Tyr | Leu | Asn | Gln | Gly | Asp | Phe | Ile | Gly | Glu | Leu | Gly | Leu | Phe | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Glu | Gly | Gln | Glu | Arg | Ser | Ala | Trp | Val | Arg | Ala | Lys | Thr | Ala | Cys | Glu |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Val | Ala | Glu | Ile | Ser | Tyr | Lys | Lys | Phe | Arg | Gln | Leu | Ile | Gln | Val | Asn |
| | | | 100 | | | | | | 105 | | | | 110 | | |

Pro Asp Ile Leu Met Arg Leu Ser Ser Gln Met Ala Arg Arg Leu Gln
 115 120 125
 Val Thr Ser Glu Lys Val Gly Asn Leu Ala Phe Leu Asp Val Thr Gly
 130 135 140
 Arg Ile Ala Gln Thr Leu Leu Asn Leu Ala Lys Gln Pro Asp Ala Met
 145 150 155 160
 Thr His Pro Asp Gly Met Gln Ile Lys Ile Thr Arg Gln Glu Ile Gly
 165 170 175
 Gln Ile Val Gly Cys Ser Arg Glu Thr Val Gly Arg Ile Leu Lys Met
 180 185 190
 Leu Glu Asp Gln Asn Leu Ile Ser Ala His Gly Lys Thr Ile Val Val
 195 200 205
 Tyr Gly Thr Arg
 210

<210> 8136

<211> 715

<212> PRT

<213> Enterobacter cloacae

<400> 8136

Phe Arg Ser Asn Gly Val Pro Pro Gln Gly Gly Thr Pro Phe Leu Ser
 1 5 10 15
 Leu Leu Leu Met Trp Arg Arg Leu Ile Tyr His Pro Glu Val Asn Tyr
 20 25 30
 Ala Leu Arg Gln Thr Leu Val Leu Cys Leu Pro Val Ala Val Gly Leu
 35 40 45
 Ile Leu Gly His Leu Gln Gln Gly Leu Leu Phe Ser Leu Val Pro Ala
 50 55 60
 Cys Cys Asn Ile Ala Gly Leu Asp Thr Pro His Lys Arg Phe Phe Lys
 65 70 75 80
 Arg Leu Ile Ile Gly Gly Cys Leu Phe Ala Gly Cys Ser Leu Ala Val
 85 90 95
 Gln Leu Leu Leu Ala Arg Asp Ile Pro Leu Pro Leu Ile Leu Thr Val
 100 105 110
 Leu Ala Met Thr Leu Gly Val Thr Ala Glu Ile Ser Ser Leu His Ala
 115 120 125
 Arg Leu Leu Pro Ala Ser Leu Ile Ala Ala Ile Phe Thr Leu Ser Leu
 130 135 140
 Ala Gly Asn Met Pro Val Trp Glu Pro Leu Leu Ile Tyr Ala Leu Gly
 145 150 155 160
 Thr Leu Trp Tyr Gly Leu Phe Asn Trp Phe Trp Phe Trp Leu Trp Arg
 165 170 175
 Glu Gln Pro Leu Arg Glu Ser Leu Ser Leu Leu Tyr Val Gln Leu Ala
 180 185 190
 Glu Tyr Cys Glu Ala Lys Tyr Thr Leu Leu Thr Gln His Thr Asp Pro
 195 200 205
 Glu Lys Ser Leu Pro Pro Leu Leu Ala Arg Gln Gln Lys Val Val Asp
 210 215 220
 Leu Ile Ser Gln Cys Tyr Gln Gln Leu His Met Leu Ala Ala Asn Lys
 225 230 235 240
 Asn His Glu Tyr Lys Arg Leu Leu Arg Ile Phe Gln Val Gly Leu Asp
 245 250 255
 Leu Gln Glu His Ile Ser Val Ser Leu His Asn Pro Glu Glu Val Gln
 260 265 270
 Lys Leu Val Glu Arg Ser His Ala Glu Ala Val Ile Arg Trp Asn Ala
 275 280 285
 Gln Thr Val Ala Ala Arg Leu Arg Val Leu Ala Asp Asp Ile Leu Tyr
 290 295 300
 His Arg Tyr Pro Thr Arg Phe Asn Met Asp Lys Gln Leu Gly Ala Leu
 305 310 315 320

Glu Lys Ile Ala Arg Gln His Ala Asp Asn Pro Val Gly Gln Phe Ala
 325 330
 Ala Trp His Phe Ser Arg Ile Ala Arg Val Leu Arg Thr Gln Arg Pro
 340 345 350
 Leu Tyr Ala Arg Asp Leu Met Ala Asp Lys Gln Lys Arg Leu Pro Leu
 355 360 365
 Leu Pro Ala Leu Lys Ser Tyr Leu Ser Leu Lys Ser Ser Ala Leu Arg
 370 375 380
 Asn Ala Ala Arg Ile Ser Val Met Leu Ser Ile Ala Ser Leu Met Gly
 385 390 395 400
 Met Ala Leu His Leu Pro Lys Pro Tyr Trp Ile Leu Met Thr Val Leu
 405 410 415
 Phe Val Thr Gln Asn Gly Tyr Gly Ala Thr Arg Val Arg Ile Leu His
 420 425 430
 Arg Ala Gly Gly Thr Met Ala Gly Leu Ile Ile Ala Gly Val Thr Leu
 435 440 445
 His Phe His Val Pro Glu Gly Tyr Thr Leu Ala Gly Met Leu Ala Ile
 450 455 460
 Thr Leu Val Ser Tyr Leu Ile Ile Arg Lys Asn Tyr Gly Trp Ala Met
 465 470 475 480
 Val Gly Phe Thr Val Thr Ala Val Tyr Thr Leu Gln Leu Leu Thr Leu
 485 490 495
 Asn Gly Glu Gln Phe Ile Ile Ala Arg Leu Val Asp Thr Leu Ile Gly
 500 505 510
 Cys Leu Ile Ala Phe Gly Gly Met Val Trp Leu Trp Pro Gln Trp Gln
 515 520 525
 Ser Gly Leu Leu Arg Gln Asn Ala His Asp Ala Leu Glu Ala Asp Gln
 530 535 540
 Gln Ala Ile Arg Leu Ile Leu Ser Asp Asp Pro Gln Pro Ser Pro Leu
 545 550 555 560
 Ala Tyr Glu Arg Met Lys Val Asn Gln Ala His Asn Ala Leu Phe Asn
 565 570 575
 Ser Leu Asn Gln Ala Met Gln Glu Pro Gly Phe Asn Ala His Tyr Leu
 580 585 590
 Ala Asp Met Lys Leu Trp Val Thr His Ser Gln Phe Ile Val Glu His
 595 600 605
 Ile Asn Ala Met Thr Thr Leu Ala Arg Glu His Thr Met Leu Thr Pro
 610 615 620
 Asp Leu Ala Gln Arg Tyr Leu Gln Ser Cys Glu Ile Ala Leu Gln Arg
 625 630 635 640
 Cys Gln Gln Arg Leu Glu Tyr Asp Ala Pro Gly Glu Ser Gly Asp Ser
 645 650 655
 Asn Ile Leu Glu Ala Pro Glu Thr Leu Thr His Gly Pro Met Ser Thr
 660 665 670
 Leu Glu Gln His Leu Gln Arg Val Leu Gly His Leu Asn Thr Met His
 675 680 685
 Thr Ile Ser Ser Val Ala Trp Arg Gln Arg Pro His His Gly Ile Trp
 690 695 700
 Leu Thr Arg Arg Leu Lys Arg Thr Ala Tyr
 705 710 715

<210> 8137

<211> 646

<212> PRT

<213> Enterobacter cloacae

<400> 8137

Gln Ile Asn Ile Val Gly Thr Tyr Gly Ala Ser Met Ile Val Phe Ser
 1 5 10 15
 Ser Leu Gln Ile Arg Arg Gly Val Arg Val Leu Leu Asp Asn Ala Thr
 20 25 30

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Thr | Ile | Asn | Pro | Gly | Gln | Lys | Val | Gly | Leu | Val | Gly | Lys | Asn | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Gly | Lys | Ser | Thr | Leu | Leu | Ala | Leu | Leu | Lys | Asn | Glu | Ile | Ser | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Asp | Gly | Gly | Asn | Phe | Thr | Phe | Pro | Gly | Asn | Trp | Gln | Leu | Ala | Trp | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asn | Gln | Glu | Thr | Pro | Ala | Leu | Ser | Glu | Pro | Ala | Leu | Asp | Tyr | Val | Ile |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Asp | Gly | Asp | Arg | Glu | Tyr | Arg | Lys | Leu | Glu | Ala | Glu | Leu | Asn | Ala | Ala |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asn | Glu | Arg | Asn | Asp | Gly | His | Ala | Ile | Ala | Thr | Val | His | Gly | Lys | Leu |
| | | | 115 | | | | 120 | | | | | 125 | | | |
| Asp | Ala | Ile | Asp | Ala | Trp | Thr | Ile | Arg | Ser | Arg | Ala | Ser | Ser | Leu | Leu |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| His | Gly | Leu | Gly | Phe | Ser | Asn | Glu | Gln | Leu | Glu | Arg | Pro | Val | Ser | Asp |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Ser | Gly | Gly | Trp | Arg | Met | Arg | Leu | Asn | Leu | Ala | Gln | Ala | Leu | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Cys | Arg | Ser | Asp | Leu | Leu | Leu | Leu | Asp | Glu | Pro | Thr | Asn | His | Leu | Asp |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Asp | Ala | Val | Ile | Trp | Leu | Glu | Lys | Trp | Leu | Lys | Ser | Tyr | Gln | Gly |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Leu | Ile | Leu | Ile | Ser | His | Asp | Arg | Asp | Phe | Leu | Asp | Pro | Val | Val |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Asp | Lys | Ile | Ile | His | Ile | Glu | Gln | Gln | Ser | Met | Phe | Glu | Tyr | Thr | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asn | Tyr | Ser | Ser | Phe | Glu | Arg | Gln | Arg | Ala | Thr | Arg | Leu | Ala | Gln | Gln |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Gln | Ala | Met | Tyr | Glu | Ser | Gln | Gln | Gln | Arg | Val | Ala | His | Leu | Gln | Ser |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Phe | Val | Asp | Arg | Phe | Lys | Ala | Lys | Ala | Ser | Lys | Ala | Lys | Gln | Ala | Gln |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Arg | Ile | Lys | Met | Leu | Glu | Arg | Met | Glu | Met | Ile | Ala | Pro | Ala | His |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Val | Asp | Asn | Pro | Phe | His | Phe | Ser | Phe | Arg | Glu | Pro | Glu | Ser | Leu | Pro |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Pro | Leu | Leu | Lys | Met | Glu | Lys | Val | Ser | Ala | Gly | Tyr | Gly | Asp | Arg |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Ile | Ile | Leu | Asp | Ser | Ile | Lys | Leu | Asn | Leu | Val | Pro | Gly | Ser | Arg | Ile |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Gly | Leu | Leu | Gly | Arg | Asn | Gly | Ala | Gly | Lys | Ser | Thr | Leu | Ile | Lys | Leu |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Leu | Ala | Gly | Glu | Leu | Asn | Pro | Val | Ser | Gly | Glu | Ile | Gly | Leu | Ala | Lys |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Gly | Ile | Lys | Leu | Gly | Tyr | Phe | Ala | Gln | His | Gln | Leu | Glu | Phe | Leu | Arg |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Ala | Asp | Glu | Ser | Pro | Ile | Gln | His | Leu | Ala | Arg | Leu | Ala | Pro | Gln | Glu |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Met | Glu | Gln | Lys | Leu | Arg | Asp | Tyr | Leu | Gly | Gly | Phe | Gly | Phe | Gln | Gly |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asp | Lys | Val | Thr | Glu | Asn | Thr | Ala | Arg | Phe | Ser | Gly | Gly | Glu | Lys | Ala |
| | 435 | | | | | | 440 | | | | | 445 | | | |
| Arg | Leu | Val | Leu | Ala | Leu | Ile | Val | Trp | Gln | Arg | Pro | Asn | Leu | Leu | Leu |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Leu | Asp | Glu | Pro | Thr | Asn | His | Leu | Asp | Leu | Asp | Met | Arg | Gln | Ala | Leu |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Thr | Glu | Ala | Leu | Ile | Glu | Phe | Glu | Gly | Ala | Leu | Val | Val | Val | Ser | His |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Asp | Arg | His | Leu | Ile | Arg | Ser | Thr | Thr | Asp | Asp | Leu | Tyr | Leu | Val | His |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Gly | Gly | Lys | Val | Glu | Pro | Phe | Asp | Gly | Asp | Leu | Glu | Asp | Tyr | Gln | Gln |

| | | | | | |
|-----|-------------------------|-------------------------|---------------------|--|-----|
| | 515 | | 520 | | 525 |
| Trp | Leu Thr Asp Val Gln Lys | Gln Glu Asn Gln Pro | Glu Glu Ser Ala | | |
| | 530 | 535 | 540 | | |
| Lys | Asp Asn Ala Asn Ser | Gln Ala Arg Lys Asp | Gln Lys Arg Arg | | |
| 545 | 550 | 555 | 560 | | |
| Glu | Ala Glu Leu Arg Thr | Gln Thr Gln Pro Leu Arg | Lys Glu Ile Ala | | |
| | 565 | 570 | 575 | | |
| Arg | Leu Glu Lys Glu Met | Glu Lys Leu Asn Ala Thr | Leu Ala Ala Val | | |
| | 580 | 585 | 590 | | |
| Glu | Glu Lys Leu Gly Asp Ser | Glu Leu Tyr Asp Gln | Ser Arg Lys Ala | | |
| | 595 | 600 | 605 | | |
| Glu | Leu Thr Asp Cys Leu | Gln Thr Gln Ala Lys Thr | Lys Ser Ser Leu | | |
| | 610 | 615 | 620 | | |
| Glu | Glu Cys Glu Met Ala | Trp Leu Asp Ala Gln | Glu Gln Leu Glu Ala | | |
| 625 | 630 | 635 | 640 | | |
| Met | Leu Gln Ala Asp | | | | |
| | 645 | | | | |

<210> 8138

<211> 316

<212> PRT

<213> Enterobacter cloacae

<400> 8138

| | |
|-----|---|
| His | Ala Gly Arg Val Met Ser Phe Asp Thr Thr Ser Glu Ile Thr Phe |
| 1 | 5 10 15 |
| Arg | Lys Leu Ser Ile Phe Met Thr Phe Met Glu Lys Gly Asn Ile Ala |
| | 20 25 30 |
| Arg | Thr Ala Glu Thr Leu Gly Leu Ser Gly Val Ser Val His Arg Ala |
| | 35 40 45 |
| Leu | His Thr Leu Glu Glu Asn Val Arg Cys Pro Leu Phe Ala His Lys |
| | 50 55 60 |
| Gly | Arg Asn Leu Ile Ala Leu Pro Ser Ala Trp Thr Leu Leu Glu Tyr |
| 65 | 70 75 80 |
| Cys | Gln Glu Val Met Gln Val Met Glu Arg Gly Leu Glu Glu Ser Arg |
| | 85 90 95 |
| Lys | Ile Ala Gly Ile Gly Gln Gly Arg Leu Arg Val Gly Thr Leu Tyr |
| | 100 105 110 |
| Ser | Leu Thr Leu Glu Thr Val Pro Arg Leu Ile Met Gly Met Lys Leu |
| | 115 120 125 |
| Arg | Arg Pro Asp Leu Glu Met Asp Leu Thr Met Gly Ser Asn Glu Thr |
| | 130 135 140 |
| Leu | Leu His Met Leu Asp Glu Gly Ser Leu Asp Ala Ile Leu Ile Ser |
| 145 | 150 155 160 |
| Ile | Ser Glu Ser Asp Ile Asp Arg Asn Ser Leu Glu Val Leu Pro Leu |
| | 165 170 175 |
| Phe | His Asp Asp Ile Phe Leu Ala Ala Pro Ala Ser Ala Thr Leu Asn |
| | 180 185 190 |
| Thr | Ser Gly Pro Ala Asp Leu Arg Asp Tyr Lys Asp Gln Lys Phe Val |
| | 195 200 205 |
| Ala | Leu Ala Glu Gly Phe Ala Thr Tyr Ala Gly Phe Gln Glu Ala Phe |
| | 210 215 220 |
| His | Ile Ala Gly Phe Glu Pro Glu Ile Val Thr Arg Val Asn Asp Ile |
| 225 | 230 235 240 |
| Phe | Ser Met Leu Ser Leu Val Gln Ala Gly Val Gly Phe Thr Leu Met |
| | 245 250 255 |
| Pro | Gly Arg Met Lys Lys Val Tyr Glu Asn Ser Val Gln Leu Leu Lys |
| | 260 265 270 |
| Leu | Ala Gln Pro Tyr Gln Met Gln Gln Leu Ile Ala Ile Val Phe Ala |
| | 275 280 285 |
| Arg | Asn Arg Glu Gln Asp Pro Ser Leu Arg Ala Leu Ala Ala Glu Gly |

290 295 300
 Arg Met Tyr Ala Arg Ser Leu Gln Asp Ser Ala
 305 310 315

<210> 8139
 <211> 350
 <212> PRT
 <213> Enterobacter cloacae

<400> 8139
 Phe Leu Thr Arg Ile Ser Ile Ala Leu Met Thr Gln Ile Ile Pro Ser
 1 5 10 15
 Asp Phe Asp Ile Ala Ala Glu Glu Ser Ala Glu Phe Val Pro Met Arg
 20 25 30
 Gly Val Ala Asn Pro His Leu Gln Thr Met Leu Pro Arg Leu Ile Arg
 35 40 45
 Arg Lys Val Gln Phe Thr Pro His Trp Gln Arg Leu Asp Leu Pro Asp
 50 55 60
 Gly Asp Phe Leu Asp Leu Ala Trp Ser Glu Asp Pro Asp Arg Ala Arg
 65 70 75 80
 His Lys Pro Arg Leu Val Val Phe His Gly Leu Glu Gly Ser Leu His
 85 90 95
 Ser Pro Tyr Ala His Gly Leu Ile Glu Ala Ala Lys Ala Arg Gly Trp
 100 105 110
 Leu Gly Val Val Met His Phe Arg Gly Cys Ser Gly Glu Pro Asn Arg
 115 120 125
 Gln Lys Arg Ile Tyr His Ser Gly Glu Thr Glu Asp Gly Thr Trp Phe
 130 135 140
 Leu Arg Trp Leu Arg Asp Asn Phe Gly Glu Ala Pro Thr Ala Ala Val
 145 150 155 160
 Gly Tyr Ser Leu Gly Gly Asn Met Leu Ala Cys Leu Leu Ala Lys Glu
 165 170 175
 Ser Asp Ala Val Pro Leu Asp Ala Ala Val Ile Val Ser Ala Pro Phe
 180 185 190
 Met Leu Glu Gln Cys Ser Tyr His Met Glu Lys Gly Phe Ser Arg Val
 195 200 205
 Tyr Gln Arg Tyr Leu Leu Asn Leu Leu Lys Ala Asn Ala Ala Arg Lys
 210 215 220
 Leu Lys Ala Tyr Pro Asp Thr Leu Pro Val Thr Leu Gln Gln Leu Lys
 225 230 235 240
 Arg Val Lys Arg Leu Arg Glu Phe Asp Asp Leu Ile Thr Ser Lys Ile
 245 250 255
 His Gly Phe Ala Asp Ala Ile Asp Tyr Tyr Arg Gln Cys Ser Ala Met
 260 265 270
 Pro Leu Leu Asn Gln Ile Thr Lys Pro Thr Leu Ile Ile His Ala Lys
 275 280 285
 Asp Asp Pro Phe Met Asp His His Ser Ile Pro Ala Pro Asp His Leu
 290 295 300
 Pro Ala Asn Val Glu Tyr Gln Leu Thr Gln Phe Gly Gly His Val Gly
 305 310 315 320
 Phe Val Gly Gly Thr Leu Arg Arg Pro Lys Met Trp Leu Glu Thr Arg
 325 330 335
 Ile Pro Asp Trp Leu Thr Ala Tyr Leu Asp Gly Lys Lys
 340 345 350

<210> 8140
 <211> 106
 <212> PRT
 <213> Enterobacter cloacae

<400> 8140

Leu Lys Ala Leu Ser Cys Ala Lys Ala Pro Ile Met Val Asn Met Asn
 1 5 10 15
 Val Arg Leu Asn Lys Arg Ser Thr Met Leu Ser Ala Ser Leu Lys Ala
 20 25 30
 Ala Thr Trp Cys Trp Tyr Gly Pro Asn Cys Met Arg Arg Ser Ile Ser
 35 40 45
 Cys Pro Ala Thr Arg Phe Met Ala Asp Leu Tyr Thr Phe Pro Val Arg
 50 55 60
 Glu Leu Leu Cys Leu Pro Asp Ile Arg Leu Leu Pro Leu Arg Val Arg
 65 70 75 80
 Val Gly Arg Glu Pro Leu Pro Pro Ala Ser Pro Ser Ala Arg Ser Ser
 85 90 95
 Pro Ser Leu Thr Tyr Gly Arg Pro Arg
 100 105

<210> 8141

<211> 191

<212> PRT

<213> Enterobacter cloacae

<400> 8141

Cys Ser Asn Gln Gln Trp Pro Val Val Ala Glu Gly Tyr Ala Leu Phe
 1 5 10 15
 Ala Val Ser Pro Asp Ala Met Ala Ala Lys Gly Asp Pro Gln Val Leu
 20 25 30
 Met Asn Thr Phe Ala Gly Asn Ile Glu Leu Glu Leu Asp Ser Gln Lys
 35 40 45
 Ala Pro Val Ser Val Lys Asn Phe Leu Asp Tyr Val Asn Ser Gly Phe
 50 55 60
 Tyr Asn Asn Thr Thr Phe His Arg Val Ile Pro Gly Phe Met Ile Gln
 65 70 75 80
 Gly Gly Gly Phe Asn Glu Gln Met Gln Gln Lys Gln Pro Asn Pro Pro
 85 90 95
 Ile Lys Asn Glu Ala Asp Asn Gly Leu Leu Asn Lys Arg Gly Thr Ile
 100 105 110
 Ser Met Ala Arg Thr Ala Asp Lys Asp Ser Ala Thr Ser Gln Phe Phe
 115 120 125
 Leu Asn Val Ala Asp Asn Ala Phe Leu Asp His Gly Gln Arg Asp Phe
 130 135 140
 Gly Tyr Ala Val Phe Gly Lys Val Val Lys Gly Met Asp Val Ala Asp
 145 150 155 160
 Lys Ile Ser Gln Val Gln Thr His Asp Val Gly Pro Tyr Gln Asn Val
 165 170 175
 Pro Thr Lys Pro Val Val Ile Leu Ser Ala Lys Val Leu Pro
 180 185 190

<210> 8142

<211> 230

<212> PRT

<213> Enterobacter cloacae

<400> 8142

Ser Phe Val His Thr Gly Ile Ser Cys Pro Cys Leu Ser Ala Leu Pro
 1 5 10 15
 Ala Lys Ala Arg Phe Ala Ala Tyr Thr Cys Gly Lys Arg Thr Ile Gln
 20 25 30
 Gly Gly Val Val Lys Lys Leu Thr Asp Lys Gln Lys Ser Arg Leu Trp
 35 40 45
 Glu Gln Gln Arg Ser Val Asn Phe Gln Ala Ser Cys Leu Leu Glu Lys
 50 55 60
 Gly Lys Gly Pro Ala Glu Pro Asp Ile Glu Thr Leu Glu Leu Gly Pro

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ser | Ala | Pro | Gly | Leu | Pro | His | Leu | Cys | Leu | Ile | His | Arg | His | Leu | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Arg | Asn | Glu | Met | Lys | Gly | Ala | Gly | Glu | Leu | Arg | Thr | Ala | Glu | Ile | Ser |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Gly | Asp | Ile | Pro | Phe | Cys | His | Phe | Glu | Tyr | Ile | Glu | Lys | Val | Gly |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Glu | Leu | Met | Ala | Ser | Leu | Glu | Ser | Asp | Lys | Tyr | Leu | Val | Gly | Leu |
| | | 130 | | | | | 135 | | | | 140 | | | | |
| Gln | Lys | Glu | Glu | Phe | Thr | Asp | Arg | Ile | Ser | His | Tyr | Tyr | Cys | Glu | Ile |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Asn | Met | Leu | His | Pro | Phe | Met | Ser | Gly | Asn | Gly | Val | Ala | Gln | Arg | Ile |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Phe | Phe | Glu | Gln | Leu | Ala | Ile | His | Ala | Gly | Tyr | Val | Leu | Asn | Trp | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Gly | Ile | Asp | Pro | Asp | Asp | Trp | Ala | Ala | Ala | Asn | Gln | Ser | Gly | Ala | Met |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Gly | Asp | Leu | Thr | Ala | Leu | Asn | Val | Ile | Phe | Ala | Lys | Val | Val | Ser | Glu |
| | | 210 | | | | 215 | | | | | 220 | | | | |
| Ala | Arg | Glu | Ser | Ala | | | | | | | | | | | |
| 225 | | | | | 230 | | | | | | | | | | |

<210> 8143

<211> 198

<212> PRT

<213> Enterobacter cloacae

<400> 8143

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asn | Arg | Ala | Ala | Ile | Phe | Ser | Gly | Ala | Ala | Met | Ile | Leu | Leu | Ile | Asp |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | |
| Asn | Tyr | Asp | Ser | Phe | Thr | Trp | Asn | Leu | Tyr | Gln | Tyr | Phe | Cys | Glu | Leu |
| | | 20 | | | | | 25 | | | | | 30 | | | |
| Gly | Ala | Glu | Val | Val | Val | Arg | Arg | Asn | Asp | Glu | Ile | Ala | Leu | Asp | Asp |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ile | Asp | Ala | Leu | Ala | Pro | Gln | Lys | Ile | Val | Ile | Ser | Pro | Gly | Pro | Cys |
| | | 50 | | | | 55 | | | | | 60 | | | | |
| Thr | Pro | Ser | Glu | Ser | Gly | Ile | Ser | Leu | Ala | Val | Ile | Gln | His | Tyr | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | |
| Gly | Lys | Leu | Pro | Ile | Leu | Gly | Val | Cys | Leu | Gly | His | Gln | Ala | Ile | Ala |
| | | | | 85 | | | | 90 | | | | | | 95 | |
| Gln | Val | Phe | Gly | Ala | Thr | Ile | Val | Arg | Ala | Ala | Lys | Val | Met | His | Gly |
| | | 100 | | | | | 105 | | | | | 110 | | | |
| Lys | Thr | Ser | Pro | Ile | Thr | His | Thr | Gly | Thr | Gly | Ala | Phe | Leu | Gly | Leu |
| | | 115 | | | | | 120 | | | | 125 | | | | |
| Asn | Asn | Pro | Leu | Thr | Val | Thr | Arg | Tyr | His | Ser | Leu | Ile | Ile | Asp | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Pro | Thr | Leu | Pro | Ala | Cys | Phe | Glu | Val | Thr | Ala | Trp | Ser | Glu | Thr | Gln |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Glu | Ile | Met | Gly | Ile | Arg | His | Arg | Glu | Tyr | Asp | Leu | Glu | Gly | Val | Gln |
| | | | 165 | | | | | 170 | | | | | | 175 | |
| Phe | His | Pro | Glu | Ser | Ile | Leu | Ser | Glu | Gln | Gly | His | Ala | Leu | Leu | Ala |
| | | 180 | | | | | 185 | | | | | | 190 | | |
| Asn | Phe | Leu | Asn | Arg | | | | | | | | | | | |
| | | 195 | | | | | | | | | | | | | |

<210> 8144

<211> 422

<212> PRT

<213> Enterobacter cloacae

<400> 8144

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Tyr | Phe | His | Asn | Asn | Cys | Asp | Ile | Lys | Met | Asp | Gly | His | Asp | Met |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Thr | Glu | Gln | Pro | Ala | Ile | Thr | Arg | Ala | Thr | Phe | Asp | Glu | Val | Ile |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Pro | Ile | Tyr | Ala | Pro | Ala | Glu | Phe | Ile | Pro | Val | Lys | Gly | Arg | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Ser | Arg | Val | Trp | Asp | Gln | Gln | Gly | Asn | Glu | Tyr | Val | Asp | Phe | Ala | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ile | Ala | Val | Thr | Ala | Leu | Gly | His | Cys | His | Pro | Ala | Leu | Val | Asp |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Leu | Lys | Thr | Gln | Gly | Glu | Thr | Leu | Trp | His | Thr | Ser | Asn | Val | Phe |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Thr | Asn | Glu | Pro | Ala | Leu | Arg | Leu | Gly | Arg | Lys | Ile | Ile | Asp | Ala | Thr |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Phe | Ala | Glu | Arg | Val | Leu | Phe | Met | Asn | Ser | Gly | Thr | Glu | Ala | Asn | Glu |
| | 115 | | | | | | 120 | | | | | 125 | | | |
| Thr | Ala | Phe | Lys | Leu | Ala | Arg | Tyr | Tyr | Ala | Thr | Thr | Arg | His | Ser | Pro |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Tyr | Lys | Thr | Lys | Ile | Ile | Ala | Phe | His | Asn | Ala | Phe | His | Gly | Arg | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Phe | Phe | Thr | Val | Ser | Val | Gly | Gly | Gln | Pro | Lys | Tyr | Ser | Asp | Gly | Phe |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Pro | Lys | Pro | Ala | Asp | Ile | Ile | His | Val | Pro | Phe | Asn | Asp | Leu | His |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Val | Lys | Ala | Val | Met | Asp | Asp | His | Thr | Cys | Ala | Val | Val | Val | Glu |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Pro | Ile | Gln | Gly | Glu | Gly | Gly | Val | Thr | Ala | Ala | Thr | Pro | Glu | Phe | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Gln | Gly | Leu | Arg | Glu | Leu | Cys | Asp | Glu | His | Gln | Ala | Leu | Leu | Val | Phe |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Asp | Glu | Val | Gln | Cys | Gly | Met | Gly | Arg | Thr | Gly | Asp | Leu | Phe | Ala | Tyr |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Met | His | Tyr | Gly | Val | Thr | Pro | Asp | Ile | Leu | Thr | Ser | Ala | Lys | Ala | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Gly | Gly | Phe | Pro | Val | Ser | Ala | Val | Leu | Thr | Thr | Gln | Asp | Ile | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Ser | Ala | Phe | His | Val | Gly | Ser | His | Gly | Ser | Thr | Tyr | Gly | Gly | Asn | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Leu | Ala | Cys | Ala | Val | Ala | Gly | Ala | Ala | Phe | Asp | Ile | Ile | Asn | Thr | Pro |
| | | | | | 310 | | | | | 315 | | | | | 320 |
| Asp | Val | Leu | Asn | Gly | Val | Asn | Ala | Lys | Arg | Asp | Leu | Phe | Val | Lys | His |
| | | | 325 | | | | | | 330 | | | | | 335 | |
| Leu | Gln | Gln | Ile | Asp | Glu | Gln | Phe | Asp | Val | Phe | Ser | Glu | Ile | Arg | Gly |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Met | Gly | Leu | Leu | Ile | Gly | Ala | Glu | Leu | Lys | Pro | Gln | Tyr | Lys | Gly | Arg |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ala | Arg | Asp | Phe | Leu | His | Ala | Ala | Ala | His | Glu | Gly | Val | Met | Val | Leu |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Asn | Ala | Gly | Pro | Asp | Val | Met | Arg | Phe | Ala | Pro | Ser | Leu | Val | Val | Glu |
| | | | | 390 | | | | | | 395 | | | | | 400 |
| Asp | Lys | Asp | Ile | Glu | Asp | Gly | Leu | Thr | Arg | Phe | Ala | Ala | Ala | Val | Ala |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Lys | Ile | Val | Ser | Gly | | | | | | | | | | | |
| | | | 420 | | | | | | | | | | | | |

<210> 8145

<211> 137

<212> PRT

<213> Enterobacter cloacae

<400> 8145

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Asn | Met | Gln | Ala | Arg | Val | Lys | Trp | Val | Glu | Gly | Leu | Thr | Phe | Leu |
| 1 | | | 5 | | | | | | 10 | | | | | 15 | |
| Gly | Glu | Ser | Ala | Ser | Gly | His | Gln | Val | Leu | Met | Asp | Gly | Asn | Ser | Gly |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Asp | Lys | Ala | Pro | Ser | Pro | Met | Glu | Met | Val | Leu | Met | Ala | Ala | Gly | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Cys | Ser | Ala | Ile | Asp | Val | Val | Ser | Ile | Leu | Gln | Lys | Gly | Arg | His | Gly |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Val | Thr | Asp | Cys | Glu | Val | Lys | Leu | Thr | Ser | Glu | Arg | Arg | Glu | Glu | Ala |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Pro | Arg | Leu | Phe | Thr | His | Ile | Asn | Leu | His | Phe | Ile | Val | Thr | Gly | Lys |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Glu | Leu | Lys | Asp | Ala | Ala | Val | Ser | Arg | Ala | Val | Asp | Leu | Ser | Ala | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Lys | Tyr | Cys | Ser | Val | Ala | Leu | Met | Leu | Glu | Lys | Ala | Val | Asn | Ile | Thr |
| | | 115 | | | | | 120 | | | | | | 125 | | |
| His | Ser | Tyr | Glu | Val | Ile | Glu | Ala | | | | | | | | |
| | 130 | | | | | | 135 | | | | | | | | |

<210> 8146

<211> 295

<212> PRT

<213> Enterobacter cloacae

<400> 8146

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Thr | Cys | Glu | Ile | Pro | Glu | Leu | Val | Met | Lys | Leu | Leu | Pro | Gln | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Gln | Val | Glu | Gly | Gly | Ala | Glu | Trp | Leu | Ala | Arg | Thr | Ala | Thr | Gln | Cys |
| | | 20 | | | | | | 25 | | | | | 30 | | |
| Leu | Ile | Asp | Glu | Ala | Arg | Leu | Ser | Pro | Lys | Pro | Gly | Leu | Val | Asp | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Gly | Asn | Gly | Ala | His | His | Asp | Leu | Ser | Leu | Ala | Leu | Met | Glu | Arg |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ser | Ala | Arg | Ser | Leu | Thr | Pro | Thr | Phe | Gln | Ala | Leu | Ala | Gln | Gln | Ser |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Trp | Gln | Arg | Pro | Ala | Asp | Ile | Ala | Leu | Arg | Gln | Thr | Val | Gly | Arg | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Gly | Arg | Glu | Gly | Glu | Arg | Gln | Met | Met | Ala | Ala | Thr | Asp | Gly | Val | Asn |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | His | Arg | Gly | Ala | Ile | Trp | Ala | Leu | Gly | Leu | Leu | Val | Ser | Ala | Val |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Met | Leu | Gly | Gly | Asp | Ala | Arg | Ala | Gln | Thr | Val | Ala | Asn | Thr | Ala |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Gln | Leu | Ala | Lys | Leu | Pro | Asp | Asp | Val | Ala | Pro | Lys | Val | Phe | Ser |
| 145 | | | | | 150 | | | | 155 | | | | | | 160 |
| Lys | Gly | Leu | Arg | Val | Thr | His | Arg | Tyr | Arg | Val | Pro | Gly | Ala | Arg | Glu |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Glu | Ala | Gln | Gln | Ala | Phe | Pro | His | Ile | Met | Gln | Arg | Ala | Leu | Pro | Gln |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Arg | Leu | Ser | Arg | Leu | Asn | Gly | Ser | Ser | Glu | Thr | Gln | Ala | Arg | Leu |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Asp | Ala | Leu | Met | Ala | Ile | Met | Thr | Ser | Leu | Thr | Asp | Thr | Cys | Val | Leu |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Arg | Ala | Gly | Met | Glu | Gly | Leu | Asp | Ala | Met | Gln | Asn | Gly | Ala | Arg |
| 225 | | | | | 230 | | | | 235 | | | | | | 240 |
| Ala | Val | Leu | Asn | Ala | Gly | Gly | Cys | Ala | Thr | Leu | Ala | Gly | Gln | Gln | Ala |
| | | | 245 | | | | | | 250 | | | | | 255 | |
| Leu | Ala | Arg | Leu | Asp | Arg | Gln | Met | Leu | Ala | Leu | Asn | Ala | Ser | Pro | Gly |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Gly | Ala | Ala | Asp | Leu | Leu | Ala | Ala | Thr | Leu | Phe | Leu | Asp | Arg | Val | Glu |
| | | 275 | | | | | 280 | | | | | | 285 | | |

Thr Pro Tyr Ser Lys His
290 295

<210> 8147
<211> 103
<212> PRT
<213> Enterobacter cloacae

<400> 8147
Glu Asp Val Met Glu Lys Ile Thr Leu Thr Val Pro Ala Ser Arg Glu
1 5 10 15
Val Ser Gly Arg Ala Leu Ala Gly Val Val Gly Ser Gly Asp Met Glu
20 25 30
Val Leu Phe Thr Ala Glu Pro Gly Gln Thr Leu Thr Ile Asp Ile Thr
35 40 45
Thr Ser Val Asp Asn Ser Arg Gly Arg Trp Glu Ala Leu Phe Asn Arg
50 55 60
Leu Gln Thr Val Ser Ser Leu Pro Ala Gly Lys Leu Thr Ile His Asp
65 70 75 80
Phe Gly Ala Thr Pro Gly Val Ala Arg Ile Arg Ile Glu Gln Val Phe
85 90 95
Glu Gly Val Asn His Ala
100

<210> 8148
<211> 276
<212> PRT
<213> Enterobacter cloacae

<400> 8148
Ser Ala Phe Cys Pro Gly Gly Glu Met Met Thr Asn Ser Ile Ser Arg
1 5 10 15
Gly Glu Leu Trp Leu Glu Thr Leu Ala Pro Asn Ala Lys Arg Leu Glu
20 25 30
Gly Leu Cys Pro Ser Val Gln Ala Ala Asp Gly Glu Leu Asn Gly Glu
35 40 45
Thr Val Arg Phe Val Ala Val Val Pro Asp Val Asn Asn His Phe Pro
50 55 60
Arg Ala Ala Gln Gly Glu Val Gly Leu Leu Glu Gly Trp Thr Leu Ala
65 70 75 80
Lys Val Val Ser Glu Thr Val Ala Ala Asp Ala Asp Lys Ala Val Lys
85 90 95
Arg Pro Ile Val Ala Val Ile Asp Val Pro Ser Gln Ala Tyr Gly Arg
100 105 110
Arg Glu Glu Ala Phe Gly Ile His Gln Ala Leu Ala Gly Ala Ala Ala
115 120 125
Ala Tyr Ala Asn Ala Arg Leu Ala Gly His Pro Val Ile Gly Leu Ile
130 135 140
Val Gly Lys Ala Met Ser Gly Ala Phe Leu Ala His Gly Tyr Gln Ala
145 150 155 160
Asn Arg Leu Ile Ala Phe Asn Asp Lys Gly Val Leu Ile His Ala Met
165 170 175
Gly Lys Glu Ser Ala Ala Arg Ile Thr Leu Arg Thr Val Glu Ala Leu
180 185 190
Glu Lys Leu Ala Ala Thr Ile Pro Pro Met Ala Tyr Asp Ile Ser Asn
195 200 205
Tyr Ala Thr Leu Gly Leu Leu Ser Asp Leu Leu Asp Ile Ser Asn Pro
210 215 220
Asp Ala Pro Ser Glu Ser Asp Leu Thr Arg Val Lys Thr Thr Leu Gln
225 230 235 240
Gln Ala Ile Ser Asp Ala Arg Gln Asp Thr Thr Leu Lys Asn Arg Leu


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<210> 8149
<211> 321
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Phe 1 | Met | Thr | Tyr | Val 5 | Ile | Val | His | Ala | Leu 10 | Ala | Pro | Ile | Phe | Val 15 | Ile |
| Met | Leu | Leu | Gly 20 | Phe | Trp | Ala | Gly | Lys 25 | Ala | Lys | Met | Val | Asp 30 | Asn | Lys |
| Asn | Val | Ser 35 | Leu | Leu | Asn | Ile | Phe 40 | Val | Met | Asp | Phe | Ala 45 | Leu | Pro | Ala |
| Ala | Leu 50 | Phe | Ser | Ala | Thr | Val 55 | Gln | Thr | Pro | Trp | Thr 60 | Gly | Ile | Val | Ala |
| Gln 65 | Ser | Pro | Leu | Ile | Leu 70 | Val | Leu | Thr | Leu | Ala 75 | Met | Trp | Ile | Thr | Tyr 80 |
| Ala | Val | Ile | Tyr | Phe 85 | Leu | Ala | Thr | Asn | Val 90 | Phe | Lys | Lys | Ser | Pro 95 | Gln |
| Asp | Ala | Ala | Val 100 | Leu | Thr | Leu | Thr | Val 105 | Ala | Leu | Pro | Asn | Tyr 110 | Ala | Ala |
| Leu | Gly | Leu 115 | Pro | Ile | Leu | Gly | Ser 120 | Val | Leu | Gly | Glu | Gly 125 | Ser | Ser | Thr |
| Ser | Leu 130 | Ser | Val | Ala | Val | Ser 135 | Ile | Ala | Cys | Gly | Ser 140 | Val | Leu | Met | Thr |
| Pro 145 | Phe | Cys | Leu | Leu 150 | Ile | Leu | Glu | Arg | Glu | Lys 155 | Ala | Arg | Ala | Glu | Gly 160 |
| Asn | Asn | Ser | Gly | Ser 165 | Thr | Leu | Ser | Met | Leu 170 | Pro | Val | Leu | Met | Trp 175 | Arg |
| Ser | Ile | Lys | Lys 180 | Pro | Ile | Val | Met | Gly 185 | Pro | Leu | Leu | Gly | Val 190 | Ile | Leu |
| Ser | Ala | Ile 195 | Gly | Ile | Thr | Met | Pro 200 | Glu | Leu | Val | Leu | Ala 205 | Ala | Ile | Lys |
| Pro | Leu 210 | Gly | Leu | Ser | Ala | Thr 215 | Ala | Ala | Ala | Leu | Phe 220 | Leu | Thr | Gly | Val |
| Ile 225 | Leu | Ser | Ala | Arg | Lys 230 | Leu | Gln | Ile | Asn | Thr 235 | Met | Val | Ile | Thr | Ser 240 |
| Thr | Ile | Ala | Lys | Leu 245 | Leu | Ile | Gln | Pro | Ala 250 | Ile | Ala | Trp | Gly | Ile 255 | Val |
| Leu | Ile | Phe | Gly 260 | Leu | His | Gly | Ser | Val 265 | Ala | Ile | Thr | Ala | Ile 270 | Leu | Met |
| Ile | Ala | Leu 275 | Ser | Ala | Gly | Phe | Phe 280 | Gly | Val | Val | Phe | Gly 285 | Asn | Arg | Phe |
| Gly | Val 290 | Gln | Ser | Pro | Asp | Ala 295 | Glu | Ala | Val | Leu | Leu 300 | Leu | Ser | Ser | Ile |
| Leu 305 | Cys | Ile | Leu | Ser | Leu 310 | Pro | Leu | Phe | Ile | Ser 315 | Leu | Thr | Ser | Gly | Met 320 |

<400> 8150

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asp | Gly | Gly | Asp | Val | Pro | Tyr | Ala | Leu | Asp | Glu | Pro | Asp | Tyr | Tyr |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Leu | Gly | Thr | Ala | Ala | Gly | Ser | Glu | Ser | Ala | Gly | Glu | Pro | Cys | Gln |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Gly | Leu | Trp | Arg | Met | Ala | Gly | Val | Thr | Asp | Ser | Gly | Gly | Arg | Thr | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Met | Asp | Gly | Ser | Asn | Leu | Leu | Leu | Ala | Gly | Val | Leu | Phe | Leu | Phe | Ala |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Ala | Val | Val | Ala | Val | Pro | Leu | Ala | Ala | Arg | Leu | Gly | Ile | Gly | Ala | Val |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Leu | Gly | Tyr | Leu | Leu | Ala | Gly | Ile | Ala | Ile | Gly | Pro | Trp | Gly | Leu | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Phe | Ile | Ser | Asp | Val | Asp | Glu | Ile | Leu | His | Phe | Ser | Glu | Leu | Gly | Val |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Val | Phe | Leu | Met | Phe | Ile | Ile | Gly | Leu | Glu | Leu | Asn | Pro | Ser | Lys | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Trp | Gln | Leu | Arg | Gln | Ser | Ile | Phe | Gly | Val | Gly | Ala | Ala | Gln | Val | Leu |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Leu | Ser | Ala | Ala | Ile | Leu | Ala | Gly | Leu | Leu | Met | Leu | Thr | Gln | Phe | Ser |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Trp | Gln | Ala | Ala | Val | Ile | Gly | Gly | Ile | Gly | Leu | Ala | Met | Ser | Ser | Thr |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ala | Met | Ala | Leu | Gln | Leu | Met | Arg | Asp | Lys | Gly | Met | Asn | Arg | Asn | Glu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Gly | Gln | Leu | Gly | Phe | Ser | Val | Leu | Leu | Phe | Gln | Asp | Leu | Ala | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Ile | Pro | Ala | Leu | Ala | Leu | Val | Pro | Leu | Leu | Ala | Gly | Ser | Gly | Asp | Asp |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| His | Phe | Asp | Trp | Met | Lys | Ile | Ser | Met | Lys | Val | Leu | Ala | Phe | Ala | Gly |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Met | Leu | Ile | Gly | Gly | Arg | Phe | Leu | Leu | Arg | Pro | Val | Phe | Arg | Phe | Ile |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Ala | Ala | Ser | Gly | Val | Arg | Glu | Val | Phe | Thr | Ala | Ala | Thr | Leu | Leu | Leu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Val | Leu | Gly | Ser | Ala | Leu | Phe | Met | Asp | Ala | Leu | Gly | Leu | Ser | Met | Ala |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Gly | Thr | Phe | Ile | Ala | Gly | Val | Leu | Leu | Ala | Glu | Ser | Glu | Tyr | Arg |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| His | Glu | Leu | Glu | Thr | Ala | Ile | Asp | Pro | Phe | Lys | Gly | Leu | Leu | Leu | Gly |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Leu | Phe | Phe | Ile | Ser | Val | Gly | Met | Ala | Leu | Asn | Leu | Gly | Val | Leu | Tyr |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Thr | His | Leu | Leu | Trp | Val | Ile | Ala | Ser | Val | Ala | Val | Leu | Val | Ala | Val |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Lys | Thr | Leu | Val | Leu | Tyr | Leu | Leu | Ala | Arg | Ile | Tyr | Gly | Leu | Arg | Ser |
| | | 355 | | | | | 360 | | | | | 365 | | | |
| Ser | Glu | Arg | Met | Gln | Phe | Ser | Ser | Val | Leu | Ser | Gln | Gly | Gly | Glu | Phe |
| | 370 | | | | | 375 | | | | | | 380 | | | |
| Ala | Phe | Val | Leu | Phe | Ser | Thr | Ala | Ser | Ser | Gln | Lys | Leu | Phe | Lys | Asp |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Asp | Gln | Met | Ala | Leu | Leu | Leu | Val | Thr | Val | Thr | Leu | Ser | Met | Met | Thr |
| | | | 405 | | | | | | 410 | | | | | 415 | |
| Thr | Pro | Leu | Leu | Met | Lys | Leu | Val | Asp | Lys | Leu | Leu | Ser | Arg | Arg | Leu |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Asn | Pro | Ala | Asp | Asp | Glu | Asp | Glu | Ala | Pro | Trp | Val | Glu | Asp | Asp | Lys |
| | | 435 | | | | | 440 | | | | | 445 | | | |
| Pro | Gln | Val | Ile | Val | Val | Gly | Phe | Gly | Arg | Phe | Gly | Gln | Val | Ile | Gly |
| | 450 | | | | | 455 | | | | | 460 | | | | |
| Arg | Leu | Leu | Met | Ala | Asn | Lys | Met | Arg | Ile | Thr | Val | Leu | Glu | Arg | Asp |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ile | Ser | Ala | Val | Asn | Leu | Met | Arg | Lys | Tyr | Gly | Tyr | Lys | Val | Tyr | Tyr |


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<210> 8151
<211> 557
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | | |
|--------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <400> | 8151 | | | | | | | | | | | | | | | |
| Ile | Arg | Arg | Leu | Ile | Met | Leu | Ser | Gly | Gln | Thr | Pro | Thr | Arg | Gln | Trp | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |
| Asn | Thr | Arg | Arg | Ser | Glu | Lys | Ala | Arg | Arg | Leu | Ala | Ser | Val | Pro | Val | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Gln | Gly | Lys | Val | Leu | Pro | Thr | Gly | Asp | Leu | Val | Ala | Met | Leu | Glu | Lys | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Leu | Ile | Ala | Pro | Gly | Asp | Lys | Val | Val | Leu | Glu | Gly | Asn | Asn | Gln | Lys | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Gln | Ala | Asp | Phe | Leu | Ser | Arg | Ser | Leu | Ala | Glu | Val | Asn | Pro | Gln | Ile | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | |
| Val | His | Asp | Leu | His | Met | Ile | Met | Pro | Ser | Val | Gly | Arg | Ser | Glu | His | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Leu | Asp | Ile | Phe | Glu | Lys | Gly | Ile | Ala | Arg | Lys | Leu | Asp | Phe | Ser | Phe | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Ser | Gly | Thr | Gln | Ser | Leu | Arg | Ile | Ser | Gln | Leu | Leu | Glu | Asp | Gly | Gln | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Leu | Glu | Ile | Gly | Ala | Ile | His | Thr | Tyr | Ile | Glu | Leu | Tyr | Ser | Arg | Leu | |
| | 130 | | | | | 135 | | | | 140 | | | | | | |
| Tyr | Val | Asp | Leu | Ser | Pro | Asn | Val | Ala | Leu | Ile | Ala | Gly | Phe | Lys | Ala | |
| 145 | | | | | 150 | | | | | 155 | | | | 160 | | |
| Asp | Arg | Lys | Gly | Asn | Leu | Tyr | Thr | Gly | Ala | Ser | Thr | Glu | Asp | Thr | Pro | |
| | | | | 165 | | | | | 170 | | | | | 175 | | |
| Ala | Leu | Val | Glu | Ala | Ala | Ala | Phe | His | Asp | Gly | Ile | Val | Ile | Ala | Gln | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Val | Asn | Glu | Leu | Val | Asp | Asp | Glu | Cys | Asp | Leu | Pro | Arg | Val | Asp | Ile | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Pro | Gly | Ser | Trp | Ile | Asp | Phe | Val | Val | Val | Ala | Asp | Lys | Pro | Phe | Phe | |
| | 210 | | | | | 215 | | | | 220 | | | | | | |
| Ile | Glu | Pro | Leu | Phe | Thr | Arg | Asp | Pro | Arg | Leu | Ile | Lys | Gln | Glu | His | |
| 225 | | | | | 230 | | | | | 235 | | | | 240 | | |
| Ile | Leu | Met | Ala | Met | Met | Ala | Ile | Lys | Gly | Ile | Tyr | Ala | Glu | His | Gln | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Val | Gln | Ser | Leu | Asn | His | Gly | Ile | Gly | Phe | Asn | Thr | Ala | Ala | Ile | Glu | |


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<210> 8152
<211> 279
<212> PRT
<213> Enterobacter cloacae
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| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Met | Arg | Asp | Asp | Ser | Ser | Phe | Ile | Glu | Leu | Lys | Ala | Arg | Gln | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ala | Gln | Ala | Leu | Leu | Asp | Asp | Gly | Ser | Tyr | Arg | Glu | Leu | Leu | Asp | Pro |
| | | | 20 | | | | 25 | | | | | | 30 | | |
| Phe | Glu | Gly | Ile | Ile | Ser | Pro | Trp | Leu | Gly | Pro | Gln | Gly | Ile | Val | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gln | Ala | Asp | Asp | Gly | Met | Val | Val | Ala | Lys | Gly | Thr | Ile | Asn | Gly | Gln |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Pro | Ala | Val | Val | Val | Ala | Ile | Glu | Gly | Thr | Phe | Gln | Gly | Gly | Ser | Met |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Gly | Glu | Val | Ser | Gly | Ala | Lys | Met | Ala | Ala | Ala | Leu | Glu | Leu | Ala | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Glu | Asp | Asn | Arg | Asn | Gly | Ile | Pro | Thr | Gln | Ala | Val | Leu | Cys | Leu | Glu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Thr | Gly | Gly | Val | Arg | Leu | Gln | Glu | Ala | Asn | Leu | Gly | Leu | Ala | Ala | Ile |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Ala | Asp | Ile | His | Ala | Ala | Ile | Val | Asp | Leu | Arg | Arg | Tyr | Thr | Pro | Val |

| | | | | |
|---|-----|-----|-----|-----|
| 130 | | 135 | | 140 |
| Val Gly Ile Val Ala Gly Thr Val Gly Cys Phe Gly Gly Met Ser Ile | | | | |
| 145 | | 150 | | 155 |
| Ala Ala Ala Leu Cys Ser Tyr Leu Ile Val Thr Arg Glu Ala Arg Leu | | | | |
| | 165 | | 170 | |
| Gly Leu Asn Gly Pro Gln Val Ile Glu Gln Glu Ala Gly Ile Glu Glu | | | | |
| | 180 | | 185 | |
| Tyr Asp Ser Arg Asp Arg Pro Phe Ile Trp Ser Met Thr Gly Gly Glu | | | | |
| | 195 | | 200 | |
| Val Arg Tyr Glu Ser Gly Leu Val Asp Ala Leu Val Gly Asp Gly Val | | | | |
| | 210 | | 215 | |
| Asn Ala Val Lys Ala Ala Met Asn Glu Ala Ile Ala Lys Gly Val Pro | | | | |
| 225 | | 230 | | 235 |
| Ala Lys His Arg Thr Asp Asn Tyr Asp Asp Tyr Leu Asn Arg Leu Thr | | | | |
| | 245 | | 250 | |
| Asn Phe Asp Thr Arg Lys Gln Ala Asp Ala Glu Gln Ile Lys Ala Leu | | | | |
| | 260 | | 265 | |
| Phe Ala Arg Glu Val Lys | | | | 270 |
| 275 | | | | |

<210> 8153

<211> 353

<212> PRT

<213> Enterobacter cloacae

<400> 8153

| | | | | |
|---|-----|--|-----|-----|
| Leu Ala Gly Ser Ala Gln Ser Cys Val Val Pro Gly Gly Tyr Thr Gly | | | | |
| 1 | 5 | | 10 | 15 |
| Gly Tyr Ala Arg Gly Arg Ile Arg Ala Gly Gly Met Val Thr Arg Arg | | | | |
| | 20 | | 25 | 30 |
| Gln Asn Ala Ala Lys Asn Ala Ile Trp Ala Ala Pro Gly Ser Gly Ser | | | | |
| | 35 | | 40 | 45 |
| Met Ala Gln Gly Gly Val Met Lys Ile Leu Phe Thr Phe Pro Gly Gln | | | | |
| | 50 | | 55 | 60 |
| Gly Thr Gln His Glu Gly Met Leu Gln Asn Leu Pro Gly Thr Glu Leu | | | | |
| | 65 | | 70 | 75 |
| Glu Gln Ala Arg Ala Val Leu Gly Ala Glu Val Asp Thr Leu Asp Ser | | | | |
| | 85 | | 90 | 95 |
| Ala Ser Ser Leu Thr His Thr Arg Ala Val Gln Leu Ser Leu Leu Ile | | | | |
| | 100 | | 105 | 110 |
| Ala Gly Val Ala Trp Ala Arg Glu Leu Glu Arg Arg Gly Val Ser Pro | | | | |
| | 115 | | 120 | 125 |
| Asp Ile Val Ser Gly Leu Ser Ile Gly Ala Tyr Pro Ala Ala Val Ile | | | | |
| | 130 | | 135 | 140 |
| Ala Gly Ala Leu Asp Phe Thr Asp Ala Leu Lys Leu Val Ala Leu Arg | | | | |
| | 145 | | 150 | 155 |
| Gly Asp Leu Met Glu Gln Ala Tyr Pro His Gly Tyr Gly Leu Thr Ala | | | | |
| | 165 | | 170 | 175 |
| Ile Met Gly Leu Thr Leu Pro Gln Val Glu Asn Leu Ile Gln Gly Thr | | | | |
| | 180 | | 185 | 190 |
| Gly Thr Tyr Ile Ala Asn Leu Asn Ala Glu Thr Gln Ile Val Ile Ala | | | | |
| | 195 | | 200 | 205 |
| Gly Ala Asp Asp Gly Met Ala Gln Val Ala Glu Arg Ala Leu Ala Lys | | | | |
| | 210 | | 215 | 220 |
| Gly Ala Asn Lys Ala Lys Arg Leu Ala Val Ser Val Pro Ser His Cys | | | | |
| | 225 | | 230 | 235 |
| Glu Leu Leu Ala Glu Pro Ala Gln Lys Leu Ala Ala Ala Phe Glu Ser | | | | |
| | 245 | | 250 | 255 |
| Val Thr Leu Ser Arg Pro Arg Cys Ala Tyr Leu Ser Gly Ser Thr Gly | | | | |
| | 260 | | 265 | 270 |
| Arg Val Leu Trp Gln Pro Glu Lys Ile Ala Asp Asp Leu Ala Met Asn | | | | |


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<210> 8154
<211> 264
<212> PRT
<213> Enterobacter cloacae
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|------------|------------|------------|------------|------------|-----------|------------|------------|-----------|------------|------------|------------|------------|-----------|------------|------------|
| Arg 1 | Leu | Gly | Leu | Glu 5 | Ala | Ile | His | Lys | Ala 10 | Leu | Gln | Val | Arg | His 15 | Ala |
| Leu | Leu | Leu | Ala 20 | Phe | Ile | His | Arg | Leu 25 | Leu | Leu | Gly | Lys | Ala 30 | Arg | Arg |
| Ala | Leu | Ala 35 | Leu | Glu | Arg | Ala | Val 40 | Val | Ala | Gly | Val | Phe 45 | Glu | His | Ala |
| Leu | Leu | Phe | Asp | Met | Asn | Asp 55 | Phe | Ile | His | His | Arg 60 | Ile | Glu | Glu | Val |
| Ala 65 | Val | Val | Gly | Asp | Gln 70 | Asn | Gln | Ser | Ala | Leu 75 | Ile | Ala | Leu | Glu | Pro 80 |
| Leu | Leu | Gln | Pro | Asn 85 | Asn | Arg | Ile | Glu | Ile 90 | Glu | Val | Val | Gly 95 | Gly | Phe |
| Ile | Glu | Gln 100 | Gln | Glu | Val | Gly | Ala 105 | Ala | Asp | Gln | Arg | Leu 110 | Arg | Gln | Val |
| Lys | Ala | His 115 | Thr | Pro | Ala | Ala | Gly 120 | Glu | Ile | Ala | His 125 | Arg | Ala | Phe | Lys |
| Leu | Phe 130 | Val | Ala | Glu | Thr | Gln 135 | Ala | Val | Gln | Gln | Ala 140 | Gly | Gly | Ala | Gly |
| Ala 145 | Asn | Gly | Pro | Gly 150 | Ile | Asp | Gly | Val | Gln | Leu 155 | Ala | Val | Asp | Gly | Gly 160 |
| Asp | Gly | Val | Ala 165 | Val | Val | Ala | Phe | Val | Gly 170 | Gly | Val | Glu | Leu | Cys 175 | Phe |
| Glu | Leu | Ala 180 | Val | Phe | Thr | Val | Ala 185 | Val | Asp | Asn | Ile | Val 190 | Glu | Arg | Gly |
| Phe | Ala 195 | Gln | Arg | Gly | Arg | Leu | Leu 200 | Val | His | Pro | Gly 205 | Glu | Leu | Pro | Val |
| Ala 210 | Arg | Glu | Gly | Lys | Val | Thr 215 | Ala | Ile | Arg | Ala | Tyr 220 | Leu | Val | Phe | Gln |
| Gln 225 | Cys | Gln | Gln | Gly 230 | Gly | Phe | Thr | Ala | Ala 235 | Val | Phe | Ala | Asp | Gln | Pro 240 |
| His | Phe | Leu | Ala 245 | Arg | Val | Asp | Gly | Ser | Ser 250 | Arg | Val | Ile | Gln | Gln | Asp 255 |
| Ala | His | Ala 260 | Ala | Thr | Asn | Leu | | | | | | | | | |

```
<210> 8155
<211> 199
<212> PRT
<213> Enterobacter cloacae
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Pro Lys Thr Thr Thr Ile His Lys Asn Arg Thr Gly Arg Gly Met Met
1 5 10 15

Ser Gln Thr Ala Lys Val Leu Leu Tyr Ala His Pro Glu Ser Gln
 20 25 30
 Asp Ser Val Ala Asn Arg Val Leu Leu Lys Pro Ala Thr Gln Leu Ser
 35 40 45
 Asn Val Thr Val His Asp Leu Tyr Ala His Tyr Pro Asp Phe Phe Ile
 50 55 60
 Asp Ile Pro Tyr Glu Gln Glu Leu Leu Arg Gln His Asp Val Ile Val
 65 70 75 80
 Phe Gln His Pro Leu Tyr Thr Tyr Ser Cys Pro Ala Leu Leu Lys Glu
 85 90 95
 Trp Leu Asp Arg Val Leu Ser Arg Gly Phe Ser Ser Gly Val Gly Gly
 100 105 110
 Asn Gln Leu Ala Gly Lys Tyr Trp Arg Ser Val Ile Thr Thr Gly Glu
 115 120 125
 Pro Glu Ser Ala Tyr Arg His Asp Gly Leu Asn Arg Tyr Pro Met Ser
 130 135 140
 Asp Ile Leu Arg Pro Phe Glu Leu Thr Ala Ala Met Cys Arg Met His
 145 150 155 160
 Trp Met Ser Pro Ile Ile Ile Tyr Trp Ala Arg Arg Gln Asp Pro Lys
 165 170 175
 Ala Leu Ala Ser His Ala Arg Ala Tyr Gly Glu Trp Leu Ala Ser Pro
 180 185 190
 Ile Pro Ala Gly Gly Arg
 195

<210> 8156

<211> 188

<212> PRT

<213> Enterobacter cloacae

<400> 8156

Pro Glu Leu Thr Gly Pro Val Asn His Asp Gly Phe Thr Val Gly Gly
 1 5 10 15
 Asp Gln Val Leu Ile Phe Gln His Leu Gln Asp Thr Ala His Cys Phe
 20 25 30
 Thr Gly Ala Ala Asp Asp Leu Thr Asp Phe Leu Ala Gly Asn Phe Asn
 35 40 45
 Leu His Thr Val Arg Val Ser His Gly Val Trp Leu Phe Arg Gln Val
 50 55 60
 Gln Gln Arg Leu Arg Asp Thr Thr Gly Tyr Val Gln Glu Gly Glu Val
 65 70 75 80
 Thr Tyr Leu Leu Arg Gly His Leu Gln Thr Ala Cys His Leu Gly Arg
 85 90 95
 Glu Thr His Gln Asp Val Arg Val Asp Leu Asn Gln Leu Thr Glu Phe
 100 105 110
 Leu Ile Arg Asn Phe Ser His Phe Thr Cys Cys Phe Cys Thr Asn Pro
 115 120 125
 Gly Ala Thr Phe Leu Ala Phe Phe Lys Gln Ala Gln Phe Thr Asp Lys
 130 135 140
 Ile Ala Leu Val Gln Ile Arg Lys Asp His Leu Phe Pro Phe Phe Ile
 145 150 155 160
 Phe Asp Gln His Gly His Arg Ala Phe Asn Asp Val Ile Gln Arg Phe
 165 170 175
 Arg Phe Phe Thr Leu Val Asn Gln Arg Ala Leu
 180 185

<210> 8157

<211> 66

<212> PRT

<213> Enterobacter cloacae

<400> 8157

Trp Val Leu Met Asn Val Ala Met Arg Gln Glu Pro Phe Glu Ser Arg
 1 5 10 15
 Val Cys Leu Arg Phe Ala Lys His His Ala Leu Leu Ser Ser Val Ile
 20 25 30
 Ser Cys His Gln Ser His Lys Met His Pro Asp Ser Gly Val Ala Ile
 35 40 45
 Glu Phe Leu Pro Ile Pro Gly Lys Ser Ala Val Val Thr Phe Arg Ser
 50 55 60
 Gln
 65

<210> 8158

<211> 232

<212> PRT

<213> Enterobacter cloacae

<400> 8158

Ser Arg Ala Ala Val Glu Leu His Thr Val Tyr Pro Val Ala Ala Ala
 1 5 10 15
 Val Tyr Leu Ala Asp Phe Arg Asn Val Ile Met Thr Thr Thr Leu Arg
 20 25 30
 Pro His Asp Leu Ile Trp Leu Thr Ala Arg Asp Ala Leu Glu Gly Ile
 35 40 45
 Thr Glu Ser Trp Val Asp Ala Ala Trp His Thr Gly Leu Pro Val Val
 50 55 60
 Val Arg Arg Asp Val Asp Asn Glu Gly Arg Ile Pro Val Gly Val Arg
 65 70 75 80
 Gly Leu Arg Arg Asp Gln Arg Ala Ala Gly Trp Val Lys Pro Glu Asn
 85 90 95
 Val Leu Arg Val Val Ser Pro Glu Asp Leu Ser Val Ala Ala Asp Leu
 100 105 110
 Leu Arg Ser Pro Phe Ile Thr Gln Pro Pro Val Gln Val Ala Leu Gln
 115 120 125
 Leu Ala Gln Gln Ser Trp Pro Trp Thr Trp Gly Ile Thr Gly Ser Thr
 130 135 140
 Gly Tyr Ala Leu Ala Thr Gly Ile Pro Val Ile His Ala Asp Ser Asp
 145 150 155 160
 Leu Asp Leu Leu Ile Arg Ala Pro Cys Thr Val Ser Pro Glu Ala Phe
 165 170 175
 Thr Asp Trp Gln Ala Gln Leu Ser Arg Ala Leu Cys Arg Ala Asp Thr
 180 185 190
 Gln Val Asp Thr Pro Glu Gly Gly Phe Ala Leu Ala Glu Trp Leu Arg
 195 200 205
 Asp Gly Lys Thr Leu Leu Lys Thr Gln Tyr Gly Pro Arg Leu Val Ala
 210 215 220
 Asp Pro Trp His Arg Glu Glu
 225 230

<210> 8159

<211> 224

<212> PRT

<213> Enterobacter cloacae

<400> 8159

Val Phe Leu Ser Leu Arg Val His Gly Cys Arg Phe Pro Leu Gln Ser
 1 5 10 15
 Ala Pro Ala Ile Phe Pro Arg Ser Gly Asp Ile Met Lys Val Ala Lys
 20 25 30
 Asp Leu Val Val Ser Leu Ala Tyr Gln Val Arg Thr Glu Asp Gly Val
 35 40 45

Leu Val Asp Glu Ser Pro Val Ser Ala Pro Leu Asp Tyr Leu His Gly
 50 55 60
 His Gly Ser Leu Ile Ser Gly Leu Glu Thr Ala Leu Glu Gly His Glu
 65 70 75 80
 Val Gly Asp Lys Phe Asp Val Ala Val Gly Ala Asn Asp Ala Tyr Gly
 85 90 95
 Gln Tyr Asp Asp Asn Leu Val Gln Arg Val Pro Lys Asp Val Phe Met
 100 105 110
 Gly Val Asp Glu Leu Gln Val Gly Met Arg Phe Leu Ala Glu Thr Asp
 115 120 125
 Gln Gly Pro Val Pro Val Glu Ile Thr Glu Val Glu Asp Asp His Val
 130 135 140
 Val Val Asp Gly Asn His Met Leu Ala Gly Gln Asn Leu Lys Phe Asn
 145 150 155 160
 Val Glu Val Val Ala Ile Arg Glu Ala Thr Glu Glu Glu Leu Ala His
 165 170 175
 Gly His Val His Gly Ala His Gly His Asp His Asp His Asp His Gly
 180 185 190
 His Asp Gly Cys Cys Gly Gly His Gly His Asp His Gly His Asp His
 195 200 205
 Gly His Gly Lys Gly Gly Cys Gly Asn Gly Gly Cys Gly Cys His
 210 215 220

<210> 8160

<211> 141

<212> PRT

<213> Enterobacter cloacae

<400> 8160

Arg Val Glu Gly Gly Cys Arg Tyr Ala Thr Thr Asp Ala Gly Arg Arg
 1 5 10 15
 Leu Met Ser Asn Ala Pro Gln Leu Tyr Ala Leu Tyr Gln Gln Leu Leu
 20 25 30
 Glu Gln Ser Gln Leu Met Leu Arg Leu Ala Arg Gln Gly Leu Trp Asp
 35 40 45
 Asp Leu Ile Ile Cys Glu Thr Asp Tyr Val Asn Ala Val His Ser Leu
 50 55 60
 Ala Arg Leu Thr Gln Glu Ser Glu Pro Ser Thr Gln Ile Gln Glu Gln
 65 70 75 80
 Leu Arg Pro Thr Leu Arg Val Ile Leu Asp Asn Glu Gly Gln Val Lys
 85 90 95
 Thr Leu Leu Gln Ala Arg Met Asp Glu Leu Ala Lys Leu Val Gly Gln
 100 105 110
 Ser Ser Ile Gln Lys Thr Val Leu Ser Thr Tyr Gly Asn Gln Gly Gly
 115 120 125
 His Val Leu Val Pro Gln Ser Asn Ser Asp Ile Asn
 130 135 140

<210> 8161

<211> 571

<212> PRT

<213> Enterobacter cloacae

<400> 8161

Arg Lys Pro Pro Gly Phe Lys Arg Cys Ala Met Ser Ala Thr Ala Ala
 1 5 10 15
 Ser Thr Ala Pro Gln Asn Lys Ser Leu Glu Trp Met Asn Arg Leu Arg
 20 25 30
 Ala Asn Pro Lys Ile Pro Leu Ile Val Ala Gly Ala Ala Ile Ala
 35 40 45
 Ile Val Val Ala Met Val Leu Trp Ala Lys Ser Pro Asp Tyr Arg Thr

| | | |
|---|-----|-----|
| 50 | 55 | 60 |
| Leu Tyr Ser Asn Leu Ser Asp Gln Asp Gly Gly Ala Ile Val Thr Gln | | |
| 65 | 70 | 75 |
| Leu Thr Gln Met Asn Ile Pro Tyr Arg Phe Ala Asp Asn Gly Gly Ala | | |
| | 85 | 90 |
| Leu Glu Val Pro Ala Asp Lys Val His Glu Leu Arg Leu Arg Leu Ala | | |
| | 100 | 105 |
| Gln Gln Gly Leu Pro Lys Gly Gly Ala Val Gly Phe Glu Leu Leu Asp | | |
| | 115 | 120 |
| Gln Glu Lys Phe Gly Ile Ser Gln Phe Ser Glu Gln Val Asn Tyr Gln | | |
| | 130 | 135 |
| Arg Ala Leu Glu Gly Glu Leu Ala Arg Thr Ile Glu Thr Leu Gly Pro | | |
| 145 | 150 | 155 |
| Val Lys Ser Ala Arg Val His Leu Ala Met Pro Lys Pro Ser Leu Phe | | |
| | 165 | 170 |
| Val Arg Glu Gln Lys Ser Pro Ser Ala Ser Val Thr Val Asn Leu Glu | | |
| | 180 | 185 |
| Pro Gly Arg Ala Leu Asp Glu Gly Gln Ile Ser Ala Val Thr His Leu | | |
| | 195 | 200 |
| Val Ser Ser Ala Val Ala Gly Leu Pro Pro Gly Asn Val Thr Leu Val | | |
| | 210 | 215 |
| Asp Gln Ser Gly His Leu Leu Thr Gln Ser Asn Thr Ala Gly Arg Asp | | |
| 225 | 230 | 235 |
| Leu Asn Asp Ala Gln Leu Lys Tyr Ala Ala Asp Val Glu Gly Arg Leu | | |
| | 245 | 250 |
| Gln Arg Arg Ile Glu Ala Ile Leu Gly Pro Val Val Gly Ser Ser Asn | | |
| | 260 | 265 |
| Val His Ala Gln Val Thr Ala Gln Ile Asp Phe Ser Asn Lys Glu Gln | | |
| | 275 | 280 |
| Thr Glu Glu Gln Tyr Ala Pro Asn Gly Asp Ala Ser Arg Ala Val Leu | | |
| | 295 | 300 |
| Arg Ser Arg Gln Ile Asn Glu Thr Glu Gln Val Gly Gly Gln Tyr Pro | | |
| 305 | 310 | 315 |
| Gly Gly Val Pro Gly Ala Leu Ser Asn Gln Pro Ala Pro Ala Asn Ala | | |
| | 325 | 330 |
| Ala Pro Ile Ser Thr Pro Pro Ala Asn Pro Gln Asn Gly Gln Gln Thr | | |
| | 340 | 345 |
| Asn Gln Gln Thr Thr Ser Thr Ala Asn Ser Thr Gly Pro Arg Asn Ser | | |
| | 355 | 360 |
| Ser Arg Asn Glu Thr Thr Asn Tyr Glu Val Asp Arg Thr Ile Arg His | | |
| | 375 | 380 |
| Thr Lys Leu Asn Thr Gly Asp Ile Gln Arg Leu Ser Val Ala Val Val | | |
| 385 | 390 | 395 |
| Val Asn Tyr Lys Thr Leu Pro Asp Gly Lys Pro Leu Pro Leu Thr Ala | | |
| | 405 | 410 |
| Glu Gln Met Lys Gln Ile Glu Asp Leu Thr Arg Glu Ala Met Gly Phe | | |
| | 420 | 425 |
| Ser Glu Lys Arg Gly Asp Thr Leu Asn Val Val Asn Ser Pro Phe Asn | | |
| | 435 | 440 |
| Pro Val Asp Glu Thr Gly Gly Glu Leu Pro Phe Trp Gln Gln Gln Ala | | |
| | 450 | 455 |
| Phe Phe Asp Gln Leu Met Ser Ala Gly Arg Trp Leu Leu Val Leu Ile | | |
| 465 | 470 | 475 |
| Val Ala Trp Leu Leu Trp Arg Lys Gly Val Arg Pro Gln Leu Gln Arg | | |
| | 485 | 490 |
| Arg Ala Glu Ala Glu Lys Ala Ala Leu Glu Gln Lys Asn Ala Arg Pro | | |
| | 500 | 505 |
| Asp Glu Glu Glu Ala Val Glu Val Arg Leu Ser Lys Asp Glu Gln Met | | |
| | 515 | 520 |
| Gln Gln Arg Arg Ala Asn Gln Arg Met Gly Ala Glu Val Met Ser Gln | | |
| | 530 | 535 |
| | | 540 |

Arg Ile Arg Glu Met Ser Asp Asn Asp Pro Arg Val Val Ala Leu Val
 545 550 555 560
 Ile Arg Gly Trp Met Gly Asn Glu His Glu
 565 570

<210> 8162

<211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 8162

Met Ile Thr Leu Gln Gln Leu Leu Met Thr Asp Ser Asp Pro Ser Gly
 1 5 10 15
 Gly Thr Leu Ala Gly Lys Gly Ala Glu Gly Ala Gln Asp Phe Leu Ser
 20 25 30
 Leu Leu Ala Gly Ala Leu Thr Glu Thr Thr Gly Lys Gly Lys Asp Ala
 35 40 45
 Pro Leu Thr Leu Ala Asp Leu Lys Ala Ala Gly Ser Lys Leu Ser Thr
 50 55 60
 Ala Ala Gln Glu Lys Asn Gly Asp Thr Thr Leu Gln Ala Lys Ile Ala
 65 70 75 80
 Glu Leu Leu Ser Arg Gln Glu Thr Leu Thr Gly Glu Asp Thr Ala Val
 85 90 95
 Ser Leu Gln Ser Leu Val Ser Gly Leu Lys Pro Ala Ala Asn Thr Asp
 100 105 110
 Ala Leu Lys Ala Leu Thr Gln Pro Glu Ala Lys Thr Asn Ser Glu Thr
 115 120 125
 Thr Thr Glu Glu Glu Glu Leu Ala Gly Leu Ser Ala Leu Met Ala Met
 130 135 140
 Leu Pro His Gln Gln Thr Thr Pro Val Ala Thr Gln Pro Ala Ser
 145 150 155 160
 Thr Gly Glu Ile Ala Pro Arg Ala Ala Leu Pro Ser Ala Leu Ala Gln
 165 170 175
 Thr Asp Asn Gly Gln His Gln Pro Leu Ser His Ala Leu Thr Gly Gln
 180 185 190
 Glu Lys Met Pro Val Gln Asp Ser Asp Thr Ser Leu Pro Ala Thr Ala
 195 200 205
 Ala Val Thr Pro Ala Val Ala Val Ala Glu Lys Gln Asp Val Ala
 210 215 220
 Ser Ala Ala Ser Pro Ala Ala Ser Pro Thr Ala Thr Leu Ala Pro Ile
 225 230 235 240
 Val Ser His Leu Ala Pro Ser Gln Pro Ala Ala Thr Val Ala Thr Ala
 245 250 255
 Pro Val Leu Ser Gln Pro Leu Gly Thr His Glu Trp Gln Gln Asn Leu
 260 265 270
 Ser Gln His Ile Thr Leu Phe Thr Arg Gln Gly Gln Gln Thr Ala Glu
 275 280 285
 Leu Arg Leu His Pro Glu Asp Leu Gly Gln Val Gln Ile Ser Leu Lys
 290 295 300
 Leu Asp Asp Asn Gln Ala Gln Leu Gln Met Val Ser Pro His Ser His
 305 310 315 320
 Val Arg Ala Ala Leu Glu Ala Ala Leu Pro Ile Leu Arg Thr Gln Leu
 325 330 335
 Ala Glu Asn Gly Ile Gln Leu Ser Gln Ser Ser Val Ser Ser Glu Gly
 340 345 350
 Phe Ala Gly Gln Gln Gln Ser Ser Ser Gly Gln Gln Gln His Ala Ser
 355 360 365
 Arg Ser Gly Gln His Gly Gly Phe Asn Asp Glu Ser Glu Glu Leu Leu
 370 375 380
 Pro Ala Pro Ala Ala Leu Gln Ser Ala Ala Arg Gly Ser Arg Ala Val
 385 390 395 400

Asp Ile Phe Ala

405

<210> 8163

<211> 147

<212> PRT

<213> Enterobacter cloacae

<400> 8163

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Arg | Arg | Thr | Tyr | His | Arg | His | His | Tyr | Pro | Phe | Arg | Thr | Tyr | Ala |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ser | Glu | Pro | Leu | Ser | Met | Lys | Thr | Gln | Ala | Thr | Leu | Ser | Ala | Pro |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Ala | Val | Pro | Gly | Ser | Pro | Leu | Leu | Gln | Val | Ser | Gly | Ala | Leu | Phe |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Ile | Ile | Ala | Phe | Ile | Leu | Ile | Ala | Ala | Trp | Leu | Ala | Lys | Arg | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Leu | Ala | Gly | Lys | Thr | Ala | Gly | Thr | Arg | Gly | Leu | Lys | Val | Ser | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Ser | Thr | Pro | Leu | Gly | Pro | Arg | Glu | Arg | Val | Val | Ile | Val | Glu | Val | Glu |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Asp | Ala | Arg | Leu | Val | Leu | Gly | Val | Thr | Ala | Ser | Ser | Ile | Asn | Val | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| His | Thr | Leu | Pro | Pro | Ala | Pro | Ala | Thr | Val | Glu | Ala | Asn | Ala | Gln | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Pro | Ala | Asp | Phe | Gln | Ser | Val | Met | Lys | Ser | Leu | Leu | Lys | Arg | Pro | Gly |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Arg | Ser | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | |

<210> 8164

<211> 129

<212> PRT

<213> Enterobacter cloacae

<400> 8164

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Trp | Phe | Arg | Pro | Arg | Pro | Leu | Pro | Cys | Pro | Leu | Arg | Ser | Cys | Cys | Ser |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Cys | Trp | Ser | Thr | Ala | Gly | Ser | Cys | Trp | Ser | Ala | Arg | Trp | Arg | Arg | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Thr | Val | Glu | Glu | Arg | Ala | Met | Thr | Pro | Glu | Ser | Val | Met | Met | Met |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Gly | Thr | Glu | Ala | Met | Lys | Val | Ala | Ile | Ala | Val | Ala | Ala | Pro | Leu | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Val | Ala | Leu | Val | Thr | Gly | Leu | Ile | Ile | Ser | Ile | Leu | Gln | Ala | Ala |
| 65 | | | | | 70 | | | | 75 | | | | | | 80 |
| Thr | Gln | Ile | Asn | Glu | Met | Thr | Leu | Ser | Phe | Ile | Pro | Lys | Ile | Ile | Ala |
| | | | 85 | | | | | | 90 | | | | | 95 | |
| Val | Phe | Val | Ala | Ile | Ile | Val | Ala | Gly | Pro | Trp | Met | Leu | Asn | Leu | Leu |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Leu | Asp | Tyr | Met | Arg | Asn | Leu | Phe | Thr | Asn | Leu | Pro | Tyr | Ile | Ile | Gly |
| | 115 | | | | | | 120 | | | | | 125 | | | |

<210> 8165

<211> 264

<212> PRT

<213> Enterobacter cloacae

<400> 8165